

ROTOCON Crackingnews

Cracking on with UV LED curing

Rotocon's investment in developing its Ecoline brand of UV LED curing systems is meeting demand from South Africa's narrow-web market, where converters are upgrading their systems from traditional mercury arc UV curing systems to the latest LED technology.

ROTOCON has recently retrofitted the first of its newly-introduced Ecoline range of UV LED curing systems to a six-colour press at Durban-based label converter, GTV Label Master.

According to Rotocon director, Pascal Aengenvoort, the first major benefit in switching to UV LED curing is significantly lower operating costs thanks to energy savings, fewer consumable parts, and lower maintenance costs. 'UV LEDs typically use up to 70% less energy compared to traditional UV curing,' he states. 'Not having to keep consumable parts on hand, such as lamps, ballasts, reflectors and fans, provides additional costs savings. Finally, lower maintenance costs result from less time spent replacing lamps and cleaning/servicing the other components,' he adds.

Users of UV LED flexo inks report significantly faster production speeds compared to mercury curing technology. Additionally, thanks to their significantly longer lifespan, instant on/off capability and reduced maintenance, UV LED systems offer enhanced press uptime.

'UV LEDs operate up to 20 times longer (20 000+ hours) than medium-pressure mercury arc UV curing systems,' Pascal explains. 'Their instant on/off capability means no waiting is required to restart a press. Faster changeovers via flexible controls and curing adjustments, such as wavelengths, working distance, dimming level (UV energy output), are also possible. All these factors contribute to improved uptime, resulting in higher production rates,' he states.

As previously reported (PPM July 2017), Durban-based GTV Label Master's relationship with Rotocon stretches back to 1992, when brothers, Ravi, Ricky and Vernon Pillay took over from their father, Thangvaloo, and continued running the business based on his founding principles of good printing practices and uncompromising quality.

'Since 1992, we've been purchasing rewinding and finishing machines, flexible dies and tooling from Michael Aengenvoort,' reports co-owner, Ravi Pillay. 'When it comes to any investment decision, we've always considered technical back-up and service to be as important as the brand we buy. And the Rotocon team has lived up to our



Rotocon director, Pascal Aengenvoort, and Durban branch manager, Akmuth Sayed, with the GTV Label Master team, and Chinese technicians who helped developed Rotocon's Ecoline UV LED curing system.

expectations in this regard,' Ravi adds. 'In fact, as there was only one Ecoline UV LED curing system already installed in the country, we took a leap of faith with our latest purchase, based on our track record with Rotocon's Ecoline brand of machines and consumables, and faith in Rotocon's technical abilities.'

The existing UV curing system, which had proved troublesome throughout its life, was very old and spare parts were no longer available.

'With power outage challenges,' Ravi goes on to relate, 'we were advised to move away from mercury UV lamps, which tend to blow, and to invest in an LED curing system because the lamps cool immediately and don't require a warm-up period.'

Although the brothers were slightly sceptical, because some converters had experienced teething troubles with newly-installed LED curing systems, they're happy to report the absence of any issues.

'We've been so pleasantly surprised by the system's performance that we've now specified another eight units be fitted to a new press on order,' remarks an enthusiastic Ravi Pillay.



An injection of cleaning power

ROTOCON'S distribution partnership with Netherlands-based Jet Europe provides the local narrow-web converting market with six fully-automatic Jet ECO cleaner models for cleaning, rinsing and drying flexo and letterpress plates – ranging from 450 to 1 400mm wide – in a single cycle.

This blue-chip supplier, with 30 years' experience in photopolymer plate processing, offers a high degree of expertise and craftsmanship. 'Each Jet



Using the Jet ECO Cleaner 450, plates are carried automatically into the processor via transfer rollers, with speed and temperature being controlled via a touchscreen.

ECO cleaner model can accommodate various plate sizes for simultaneous cleaning, utilising two brushes and a variety of cleaners for any plate/ink combination,' reports Rotocon director, Patrick Aengenvoort.

Over the past four years, Gauteng-based self-adhesive label and price marking specialist, KS Scales & Labels, has partnered with Rotocon by investing in three Ecoline slitter/rewinders (PPM April 2019) and a Jet Europe plate washing machine.

In 2019, owner, Nathan Naidoo, became the first local label converter to invest in a Jet ECO cleaner to further improve print quality by ensuring all UV ink residue is removed from plates at each job changeover, representing a major upgrade from manual plate washing.

'To remain competitive, we needed to invest in high-quality equipment to improve our printing results,' Nathan states. 'We're confident we have the most cost-effective system. The Jet ECO cleaner 450 has helped to save cleaning time and has improved our print quality as there's no longer any clogging of fine print. It has also improved storage processes, making plates easier to find after night shift work and minimising plate damage.'

The washout, rinsing and drying cycle usually takes around three to five minutes, depending on plate thickness.

Although KS Scales & Labels cleans 250mm wide plates in the machine, it can accommodate a maximum plate width of 450mm.