



# POWERING UP THE DRYING PROCESS

**Gas supply disruptions are accelerating the conversion of web presses to LED-UV curing from Baldwin Technology.**

The escalating energy crisis has Europe at risk of running short of natural gas stockpiles in the middle of peak winter demand should Russia continue to restrict supplies. With uncertainty mounting and the potential for mandatory rationing ahead, proactive European printers are severing their dependence upon gas dryers by converting to LED-UV curing on their web presses to avert the risk of being unable to print.

Converting web presses to LED-UV curing is an immediate action European printers are taking not only to end their

reliance on gas for the short term, but also for long term quality, productivity and environmental benefits that make the investment worthwhile.

Baldwin Technology reports that it has had an influx of requests for such retrofits and has been installing them at record pace for a growing number of customers racing to eliminate their reliance on gas to ensure continued production in the worst case scenario of potentially severe disruptions this winter and beyond.

Additionally, several news sources have reported that

the EU is planning to provide funds to support industry investments in non gas alternatives, which will help make conversions more affordable and hasten the pace of installations.

'European printers need an immediate solution. Presses with gas dryers are vulnerable to the crisis, and printers need a partner they can trust for converting to LED-UV,' said Carsten Barlebo, Baldwin's AMS Spectral UV sales leader for Europe. 'We have walked more web offset printers through LED conversions than all other companies combined, so Baldwin is that partner.'

## ELIMINATING GAS RELIANCE

LED-UV on web offset retrofits have been gaining traction among printers in the years since the concept's relatively recent inception. Early adopters have invested in the technology for a better, more targeted cure yielding higher print quality and more consistent drying results.

Converting to LED-UV is also the clear choice for the environment, with a significantly smaller carbon footprint through far less energy consumption used in the process.

With LED-UV, only around 28 kW per hour is needed to cure a 1000 mm wide web at full production speed, which results in a minimum of 70% less energy consumption versus a heat dryer so even if availability is not an issue, cost should be. This savings not only aligns with printers' increasing implementation of sustainability objectives, but also with the acceleration of mandatory carbon footprint reduction regulation, which is especially pronounced in Europe but also trending globally. Additionally, LED-UV curing is compliant with Europe's Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS) standards by eliminating mercury and ozone.

With the worldwide paper shortage bringing its own set of challenges, LED-UV also allows for use of thinner, less expensive papers along with introduction of new stock types, and up to 30% less ink consumption. And recyclability of the printed material is the same as with oil based ink.

Other benefits of LED-UV include instant activation of the lamps on and off with no standby and the elimination of heat emitted, which enhances both the quality of the finished product and the working environment in the pressroom.

Baldwin's AMS Spectral UV brand pioneered and proved the concept of LED-UV on web presses in 2016 and has since converted more presses worldwide than any other supplier, with nearly two dozen installations across Europe, the US and Asia. The company has worked closely with all major web press manufacturers and won their approval and support, including conversions on Goss M600, Mitsubishi Diamond and Komori System 38 16 page presses along with Man Octoman and Lithoman models. Its hands-on expertise from the beginning to the end of the process has proven to

ensure a smooth transition, removing the complexity for customers while ensuring seamless operation.

## TRENDSETTERS

Switzerland's Kyburz was one of the earliest adopters in 2017 when the printer retrofitted its Man Octoman press with an AMS LED-UV curing module, making it the first press configuration of its kind in the country. It proved that using energy curable ink delivered print quality that rivalled that of the best sheetfed offset output with perfectly flat sheets. And LED-UV's extremely compact, solid state form factor made room to repurpose valuable floor space.

With the gas crisis heating up in Europe, Kyburz is actively considering converting another web press to ensure its continued operation in the worst case scenario of a disruption in gas supply. And for the long term, the Swiss printer says the other proven benefits make the investment in the technology worthwhile.

## MOUNTING CRISIS

Russia shut down the Nord Stream 1 pipeline completely and indefinitely in late August. It is a major delivery route to Europe for Russian gas, accounting for around a third of all Russian gas exports to Europe. 'The indefinite closure of the pipeline is an escalation that threatens more economic turmoil,' Fortune reported on September 2. 'With prices four times higher than a year ago, the gas crisis is already forcing shutdowns in European industry and undermining the Euro.'

European leaders have already taken steps to limit the impact of a halt in the gas supply, and are continuing to plan for how an extreme shortage and rationing of gas supplies would impact their countries.

'On Sunday, the German government announced a €65 billion (\$64 billion) relief package to help households and companies cope as inflation soars,' CNN reported on September 5. 'Together with previous measures, that brings the total amount of government support to €95 billion (\$64 billion), equivalent to about 2.5% of German GDP.'

In case of a severe gas shortage, industry will be cut off first before consumers and essential services like schools and hospitals, amplifying the need for printers to proactively plan for an alternate source of energy to dry their inks or risk being incapacitated.

'Baldwin understands the gravity of the European gas crisis because our employees and their families live in Germany, France, Spain, Italy, Denmark, Belgium, Holland and Sweden,' concluded Jonathan Fore, commercial lead for Baldwin's AMS Spectral UV segment. 'The print industry is hardly the only one affected by this situation, but if your livelihood depends on your ability to dry what you print, you can depend on us to help you convert to LED. We can make sure your press, at least, isn't dependent on the availability of gas.'