

# SHEETFED LED UV

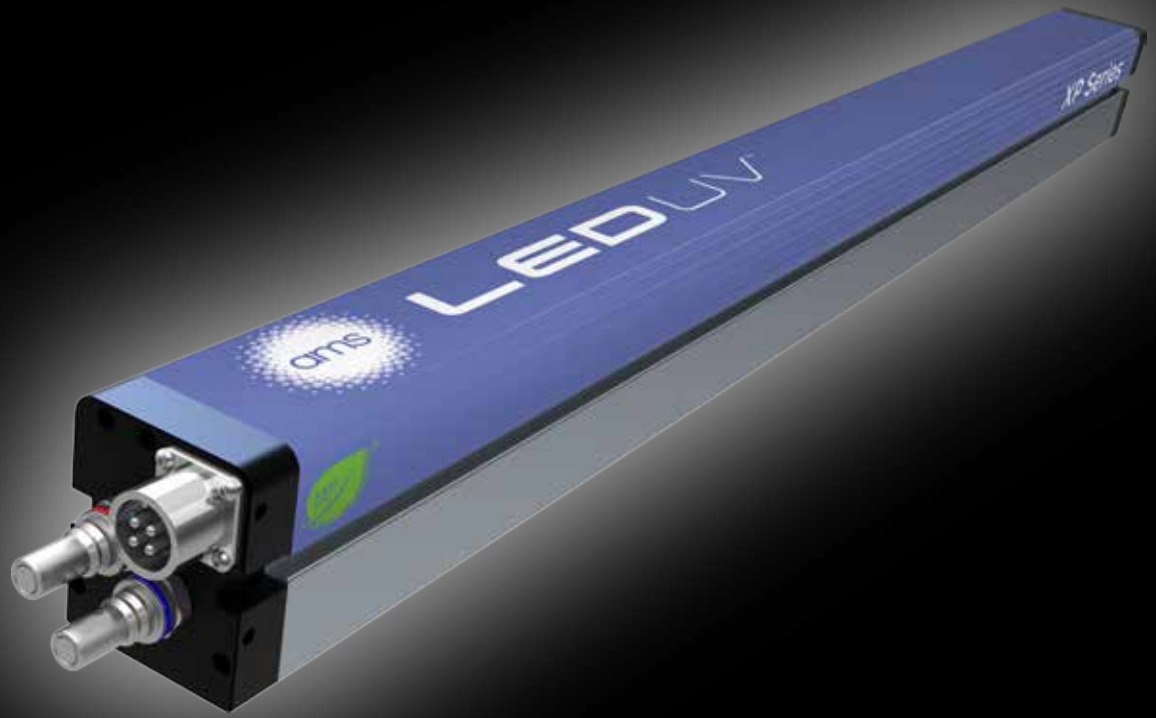
*FULL SPEED AHEAD*



AIR MOTION SYSTEMS | AMS UV®

LEDUV™





LED UV™



**Air Motion Systems (AMS) is the #1 provider worldwide of high-power, high-performance, multi-format LED UV systems for printing and industrial curing. Our relentless focus on customer satisfaction and innovation has made AMS the most recognized company in the field of UV curing.**



Steve Metcalf, President / CEO, Air Motion Systems, Inc. | AMS

**AMS: #1 WORLDWIDE IN HIGH POWER LED UV**

- More LED UV installations in sheetfed offset litho than all other companies combined
- Award-winning, patented Peak Optics™ designed for any press size or manufacturer
- Secure curing with all leading LED and High Reactive UV inks, varnishes and coatings, including high-quality traditional UV inks with MultiWave™

# The SHEETFED LED UV™ Printing Revolution



Print dry sheets instantly, straight to your bindery with “offset-on-demand” speed



Expand your business. Print on synthetics, coated and uncoated papers, carton board, metalized, poly, and more



Print heavy ink densities with high brilliance for improved quality



Add high-value spot, gloss and drip-off (strike-through) effect coatings in-line



Achieve top press speeds without marking or set-off concerns (up to 20,000 sph)



Eliminate spray powder from the press-room, reduce maintenance and cleaning, increase print quality and avoid rework

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Eliminate need for costly water-based (aqueous) protective varnishes and dispersion coatings



Reduce energy consumption by up to 80% compared to IR/Hot Air and traditional UV, and by up to 50% compared to High Reactive UV



Avoid costly environmental regulations concerning mercury and ozone (required for UV and High Reactive UV systems)



Deliver sheets fresh every time, without any foul odors (common issue with heat, traditional UV and High Reactive UV systems)



Convert your entire press to LED UV in a single day with GoFast™ startup services and performance coaches from AMS



LED equipped presses often demonstrate a ROI on the capital expenditure of 6 months or less

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# AMS LED UV™ Distinct Advantages

## Peak Optics™

- **Patented Optics** allow a single AMS LED UV module to be repositioned quickly between interdeck and end-of-press
- **Dynamic Collimation** provides high intensity to the sheets in the delivery regardless of the distance from the LED module
- **Highest Power Intensity** provides assured curing on the widest variety of materials
- **Perfect Uniformity** of optics means no gaps or seams in output, and no differences in cure or gloss levels across the sheet
- **Single Row of Big Chip LEDs** creates the most energy-efficient LED module available with the highest index of curing efficiency
- **Compact Durable Housing** incorporates the optics and fits the widest range of press types on the market
- **Replaceable, Upgradeable LEDs** are provided for via a single-row chip architecture and interconnect system
- **MultiWave™ Blending** of LED wavelengths provides for a wide spectrum of curing for the broadest range of UV inks and coatings


## Quality Systems

- **Complete, Field-Proven Design** considers the entire printing system and understands that uptime is the most critical factor
- **Military-Grade Connections** and rigorously tested components ensure high quality and a long, hassle-free product life
- **Liquid-Cooled** modules provide high water flow rates and robust cooling for optimal performance and life of the LEDs
- **Intelligent Control Systems** provide active monitoring of LED modules and communicate both to and from the press
- **24/7 Service Access** for rapid response and easy remote support from AMS's Worldwide Service Team

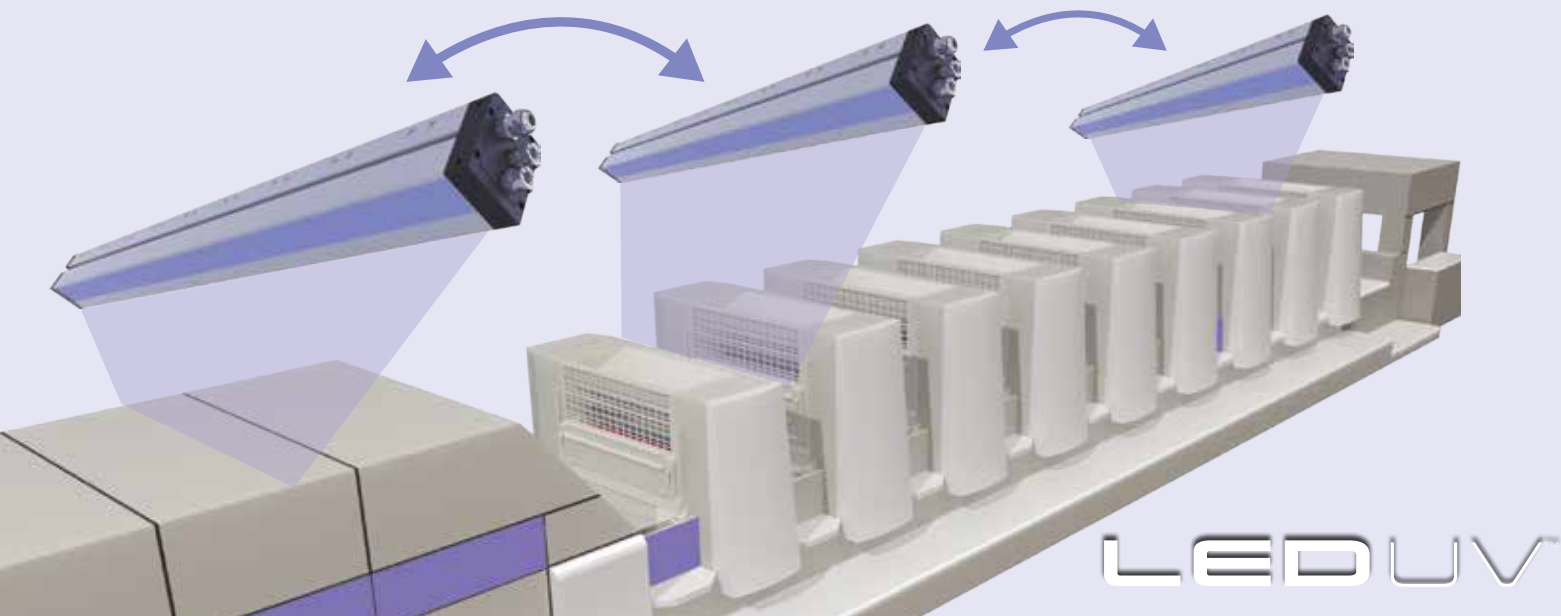


- **Accelerated Life Testing** ensures extremely long useful life of LEDs in varied environments (up to 30,000+ printing hours)
- **FutureProof LED™ Program** safeguards system investment and wavelength upgrades in the future

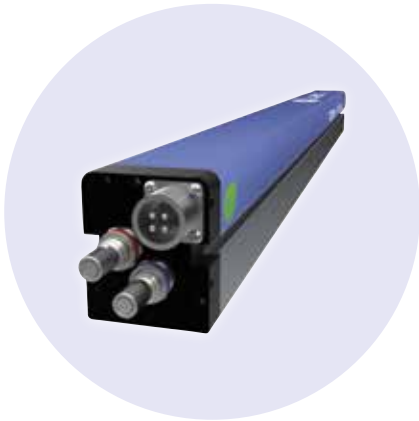
## #1 Worldwide

- **Proven LED UV Platform** with hundreds of thousands of hours of faultless operation on presses around the world
- **SecureCure™ Guarantee** offered for all major ink and coating suppliers with LED GreenLeaf™  certified products
- **LED GoFast™ Installations** complete with consumable packages for each system start-up
- **LED FastTrack™ Support** services brings the world's best LED knowledge base directly to your pressroom
- **100% Satisfaction Guarantee** eliminates risk if for any reason LED UV does not meet your full expectations

AMS XP SERIES LED UV™ MODULES OFFER TOTAL PRESS FLEXIBILITY WITH PEAK OPTICS™



# SHEETFED Series LED UV™ System Package



## XP Series™ LED-UV™ Module

Expandable Peak Optics™ (XP) Series LED modules from AMS use the most advanced LED chips available, providing the highest curing intensities, the greatest working range, and total uniformity for SecureCure™ at up to 20,000 sph. Patented, water-cooled modules feature replaceable LED chip packages for long-term assurance of investment.



## LightControl™ Power System

AMS SC and LC power control solutions provide intelligent, variable control with active monitoring for one or more LED modules, integrating them with the press run-time and safety features, as well as safeguarding the LED UV modules. Portable and stackable, SC and LC control units offer remote-access to enable 24/7 system support.



## CoolSafe™ Water Protection

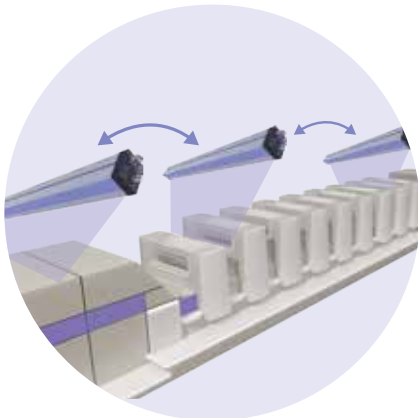
Each AMS LED UV system comes with a patent-pending CoolSafe™ Intelligent Water Manifold to protect the LED modules from the risk of under-cooling and condensation damage. CoolSafe™ units are integrated between the chiller and the LED modules to control water flow to the LED modules when the press is running and bypass water back to the chiller when the press has stopped — protecting and extending the life of the LED modules.





## Matched LED Chiller

All AMS systems come with matched water-chillers from leading manufacturers and are covered by the AMS hassle-free warranty. Chillers provide constant cooling at 18C (64F) on a closed-loop system to ensure smooth, stable operation of the LED UV modules regardless of the ambient temperatures within your facility.



## MultiFlex™ LED Mounts

The unique design of the XP modules allow quick and easy mounting at multiple press positions, and because of AMS' patented Peak Optics™, a single LED module can be moved between Interdeck and Delivery locations to meet just about any job or curing requirement. AMS has designed MultiFlex™ brackets for just about every press on the market, and systems include full integration for safe, automatic and seamless operation with the press.



## GoFast™ Installation

AMS provides worldwide professional, turnkey installation and start-up of each LED UV system via experienced technicians. Included with each installation is a start-up kit containing LED GreenLeaf™  certified inks and consumables, as well as a 2-year membership in the International LED-UV Association ([www.leduv.org](http://www.leduv.org)) to get the press operating quickly and efficiently with LED.

# SHEETFED Series LED UV™ Specifications

## Technical Parameters

XP9 Series 1050mm (41-in)

|                    |  |
|--------------------|--|
| Intensity          | 17 W/cm <sup>2</sup> (at window)           |
| Wavelength         | 385nm (+/- 10nm)                           |
| Electrical         | 90 W/cm (230 W/in)                         |
| Mains              | 200/400/480, 3 phase, 50/60 Hz             |
| Max LED Power (ea) | 10 kW (15 FLA @ 380 VAC, 14 FLA @ 460 VAC) |
| Cooling            | 18°C (64°F) water                          |
| Chip Life          | 30,000+ printing hours                     |
| Conformance        | CE, RoHS, UL                               |

## Process Parameters

XP9 Series 1050mm (41-in)

|                    |   |
|--------------------|---|
| Max Speed          | 20,000 sheets/hour straight mode<br>18,000 sheets/hour perfecting   |
| Ink Densities      | 355% CMYK with ISO 12647-2 density values + 15% over inking   |
| Paper Types        | Coated, Uncoated/Recycled   |
| Paper Weights      | All weights and grammages   |
| Synthetic Papers   | Virtually all, depending on substrate and printability, dyne level, etc.  |
| Coatings/Varnishes | 18,000 sheets/hour @ 6-7 g/m <sup>2</sup> net lay-down "wet-on-wet" on 4 Color CMYK with above-stated density values                            |
| Coating Effects    | Litho Overprint Varnishes (similar to aqueous gloss)<br>High Gloss Flexo Coating (up to 95 gloss)<br>Drip-Off/Strike-Through (extreme contrast) |



# See The Light™



*“The ability to print virtually any material and process the sheets instantly is priceless.”*

— David Bland, Blackmore, UK [KBA Rapida 105]

*“The moment we saw the AMS LED UV system in operation, we were convinced.”*

— Marc De Jong, Deltabach, Netherlands [Heidelberg CX 102]



*“Sheets are fresh and vibrant every time. We found this remarkable compared to all other drying methods.”*

— Olaf König, CEO KÖNIGSDRUCK, Germany [KBA Rapida 106]

*“For us it has been a cost benefit to have this technique. The market loves it. LED is the future for us.”*

— Niklas Bille and Colleagues, Billes Tryckeri, Sweden [MR 700]



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