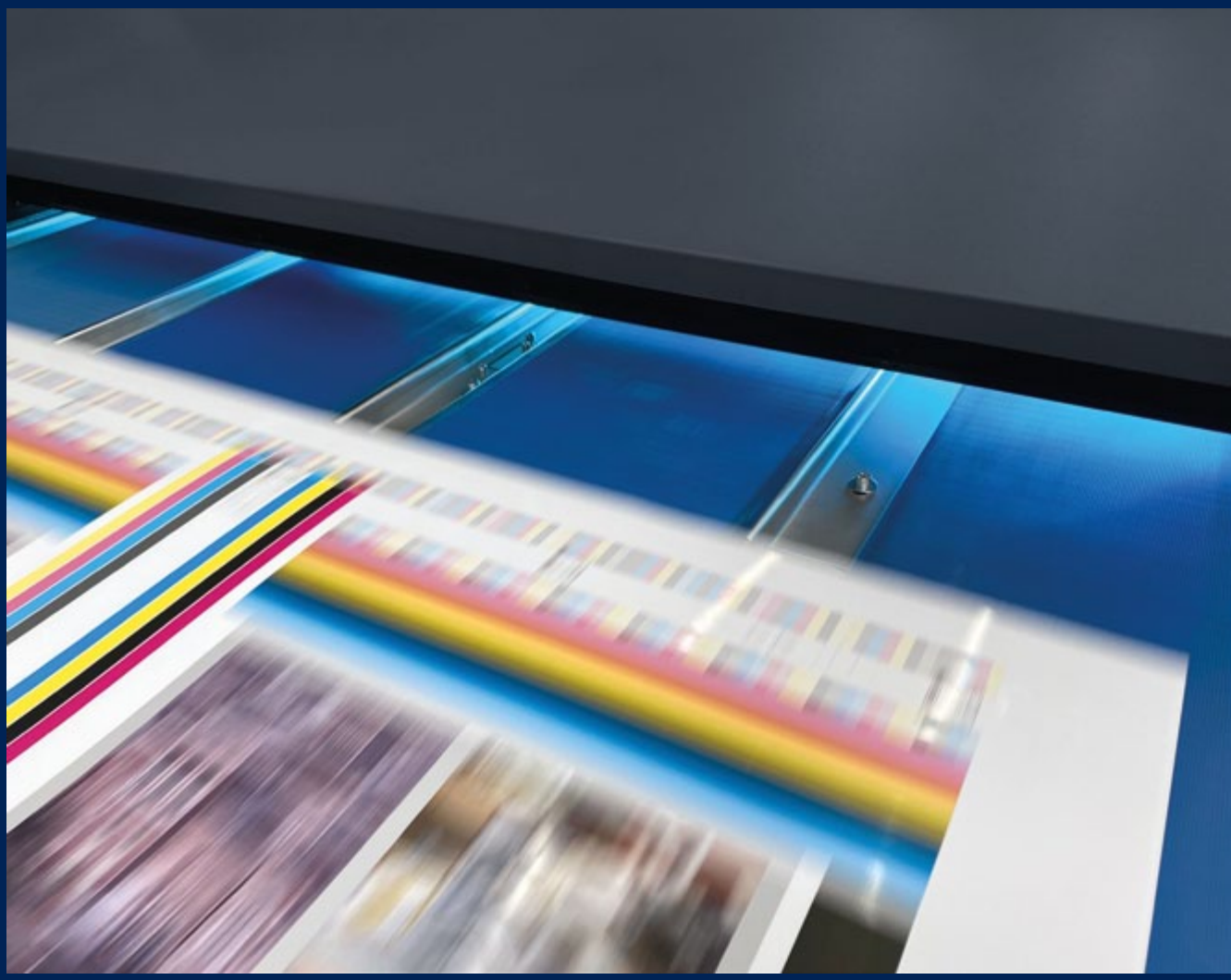
KOENIG & BAUER

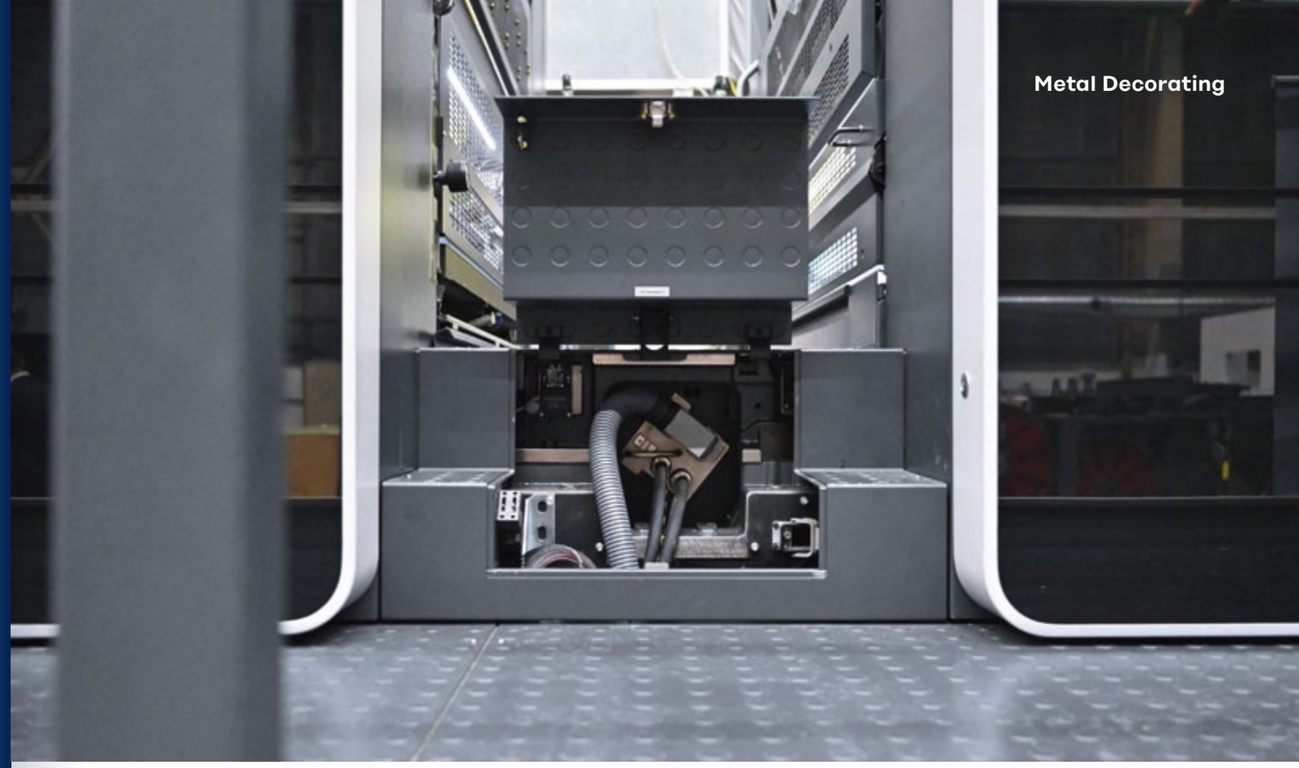
MetalCure UV / UV-LED



we're on it.

MetalCure – Efficient Systems with Reliable UV or Energy-Saving UV-LED Technology

The growing trend towards incorporating UV and UV-LED technologies into printing lines is impossible to overlook. The benefits of the technology are similarly obvious – energy and space-saving production that meets the high quality demands of the metal packaging market!



Koenig & Bauer MetalPrint sets standards in the decoration of metal packaging. With over 60 UV lines in the market, it has been the established technology for many years. Over 70 percent of the printing lines are configured with UV or UV-LED systems.

Possible configurations with MetalCure

- **UV printing lines** with or without inline coating
- **UV-LED printing lines** with or without inline coating
- **Hybrid production:** UV or UV-LED decorating press with conventional inline coating and thermal drying

Inline coating enables profitable production with fast throughput times. The printed image and the protective coating are applied in a single production step. Koenig & Bauer MetalPrint offers a range of options for inline coating. The MetalStar 4 coating tower and the anilox coating unit of the MetalCoat 480 are particularly suitable for inline UV or UV-LED coating. The MetalCoat 470 and the MetalCoat 483 are equipped with a flexible three-roller coating unit and can be used for coating with UV, UV-LED, or conventional coatings.

Koenig & Bauer MetalPrint would be pleased to assist you in your selection of an economical and sustainable solution.

MetalCure UV

MetalCure UV dryers incorporate state-of-the-art reflectors that guarantee an optimum focus while, at the same time, reducing heat build-up on the metal sheet due to IR and scattered light.

The Koenig & Bauer UV technology is available for MetalStar 4 and Mailänder 280 printing or printing and coating lines. All relevant sections of the machines are prepared for UV production using the optional UV package. This includes, for example, ink agitators, suitable roller coatings and shielding for the printing units as protection from UV radiation.

The UV modules from Koenig & Bauer MetalPrint achieve an excellent focus at all the required distances between dryer and substrate.

Each dryer module can be provided with an integrated operating hours counter, so that it is always possible to determine how long a UV lamp has been in use, even if the module is moved to a different position. As a further option, the modules can be fitted with inline measurement sensors to ensure that only lamps with adequate output capacity are used in production.

The output of all MetalCure UV dryers can be progressively set to between 80 W/cm and 160 W/cm (or optionally 200 W/cm).

Key facts

- Flexible use of the individual UV modules as final dryers, as interdeck dryer in a decorating press or as backside dryers where installed after a MetalCoat
- Sheet transport with integrated ozone extraction, UV-resistant belts and radiation shielding
- State-of-the-art reflector geometry for an optimum focus
- Reduced IR and scattered light means less heat build-up on the metal sheet
- Progressive adjustment of the lamp output
- Fast module fitting and removal
- Fast lamp replacement
- Operation integrated into the console of the MetalStar 4
- Reduced waiting times when washing with CleanTronic UV
- Integrated operating hours counter in each UV module

MetalCure LED

MetalCure LED is an especially efficient drying technology available from Koenig & Bauer MetalPrint. The low energy consumption of the LED lamps, in combination with deactivation during make-ready and the facility to switch off the outer segments for work with smaller formats, make the technology economically unbeatable.

The LED technology is available for MetalStar 4 and Mailänder 280 printing or printing and coating lines.

The use of semiconductors in the LED modules is the key to energy-saving production. Energy costs for the drying process can be reduced by up to 90 percent compared to conventional UV production. No warm-up period is required and the lamps are only active during sheet travel. Each LED lamp module is divided into segments, enabling the width of the radiation output to be adapted to the sheet format. All MetalCure LED modules permit progressive adjustment from 0 – 100 percent.

The LED modules deliver a high light intensity with a peak at 385 – 390 nm, which is an ideal wavelength for the current LED ink and coating systems.

Key facts

- Flexible use of the individual LED modules as final dryers, as interdeck dryers in a decorating press or as backside dryer where installed after a MetalCoat
- UV-LED sheet transport with UV-resistant belts and radiation shielding
- Optimum focus due to modified optics
- Practically no heat build-up on the metal sheet, as there is no IR radiation
- Fast throughput times, the next production step can take place without waiting times
- Progressive adjustment of the lamp output
- Fast module fitting and removal
- Long service life of 20 000 operating hours
- Reduced maintenance costs, no need for regular lamp replacement
- Future-proof, as the lamps do not contain mercury
- No waiting times when washing
- No ozone emissions and therefore no need for ozone extraction
- Nearly no energy consumption in stand-by mode
- Outer segments can be switched off when working with smaller formats
- Low energy consumption during production

Outer segments can be switched off to reduce energy consumption when working with smaller formats

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