

The Genius 52UV by KBA-MetroPrint AG,

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For further information please contact our sales department at:
 KBA-MetroPrint AG
 Benzstr. 11
 97209 Veitshöchheim / Germany
 Tel: (+49) 931 9085-9
 Fax: (+49) 931 9085-100
 www.kba-metroprint.com
 salesprinting@kba-metroprint.com
 Printed in Germany

Our agency:



GENIUS 52UV

Standardized sheet fed offset with waterless and UV technology
 without ink zones for printing on plastic and carton



Waterless offset printing with UV technology: The Genius 52UV from KBA-MetroPrint sets new standards for quality and cost-effectiveness when printing on paper, carton board and extreme materials such as films and hard foils (e.g. PVC, PET, ABS) and on sheets from 0.1 to 0.8 millimeter thick (depending on the substrate)

Simply ingenious:
cost-effective, efficient and
user-friendly for offset
newcomers and professionals



Extremely space-saving, compact design on only 12 m². Ergonomic, optimum handling of the Genius 52UV by means of the front-fitted and laterally adjustable lifting board and combined lifting/forwarding suckers operating display with touchscreen panel



Quality begins at the feeder with constant register accuracy based on double-sheet control, a suction tape feed board and combined lifting/forwarding suckers

Creative minds face a real challenge when it comes to using the vast offering of paper, carton board and nonabsorbing materials (e.g. plastics such as PVC, PC, PS, ABS and PET) available for the jobbing, packaging and label printing sectors.

There is a growing demand especially for plastic films. What was once a domain reserved for screen printing is now also open to offset printers who, equipped with UV and waterless technology, are well positioned to get a share of this high-growth market for themselves. But even screen printing businesses can use the greater flexibility provided by this new technology to extend their markets. In the lucrative packaging print sector, where quality of the highest standard is the order of the day, many print products can be manufactured inline with high process reliability and good cost-effectiveness. In other words: printing in five colors, ghosting-free with service-proven short inking units, on materials up to 0.8 mm thick.

And (only) the Genius 52UV can do it! The technical press had the following to say about the Genius 52UV: "The new offset printer is waterless and rollerless". For good reason! Many notorious, hard-to-master parameters of conventional offset printing are now a thing of the past. For example: There's no more adjusting the ink zones, damping units and roller inking units, and no more controlling the ink-water equilibrium. KBA-MetroPrint AG has many years of experience with waterless short inking units without ink keys. This is verified by more than 2,500 printing units installed world-wide.

Winning arguments are process stability and standardized printing, complete plate change within five minutes, only about 10 sheets of run-up waste, and up to 8,000 printed sheets per hour in a size of 360 x 520 mm. The one-man machine with its high degree of automation for ease of operation is predestined for small and medium print runs with extremely short job changeover times. Having just a few, clearly arranged touchscreen menus, the Genius 52UV can be mastered by new operators within the shortest possible time.

Highly cost-effective and efficient through the minimization of time and cost:

- Printing times can be planned for available printing plate sets
- Job changeover in no more than 5 minutes
- Around ten sheets of run-up waste
- 1:1 ink transmission by cylinders of identical diameter results in ghosting-free prints
- Consistently high printing quality from the first to the last print with the anilox short inking unit. Inking is held constant by temperature control over the entire sheet width
- Excellent register stability thanks to gripper bite
- Urgent printing jobs are possible at short notice
- Lower production costs due to smaller footprint of less than 12 m²
- New business fields made possible by high flexibility with extreme substrates

The economic strengths of the Genius 52UV lie in small and medium-size print runs. Its most striking advantage is the small amount of setup work and the short period of time until the first "good sheet" is produced. It is inked up more quickly than other machines. And this becomes all the more noticeable with frequently changing jobs.

What counts is the result: simply high print quality without color fluctuations

The foundation for quality is always laid in the prepress department. A poor prepress result cannot produce a good print; this is a fact that no tricks can change. Provided the prepress work has been performed with due care, the short inking units with waterless offset technology will guarantee an exact and unchanging ink density and brilliance that extends through to the smallest detail. Another decisive advantage of the zone-free technology is that the quality of print can be reproduced at any time.

Ghosting-free printing

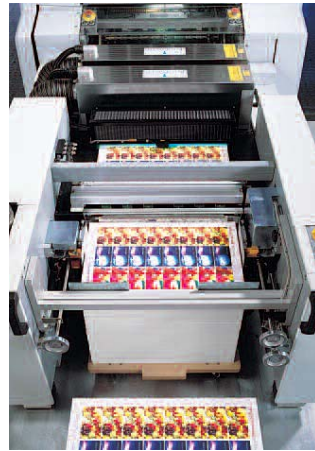
A key characteristic of the Genius 52UV is the V-shaped arrangement of its five printing units around the central impression cylinder of fourfold size. Each sheet is printed true to register without gripper transfers, thus preventing register differences. Anilox roller, blanket plate cylinder and printing cylinder all have exactly the same diameter, thus guaranteeing a ghosting-free type form.

Temperature-controlled ink volume

Ink control with the anilox roller and collecting blade quickly enables optimum inking for difficult forms. The ink density can be elegantly decreased or increased by temperature control of the anilox rollers.

A thin coat of ink is transferred to the plate coater with each rotation of the ceramic-covered anilox roller. A doctor blade removes surplus ink in order to obtain a constant final print. The plate cylinder and anilox roller are temperature-controlled in order to stabilize the printing process.

Printing in four or five colors takes place with UV-curing inks which are instantly and fully cured by means of a powerful integrated dryer unit in the delivery unit. Additional processing operations such as laminating or die-cutting can thus follow straight after the printing without any delay.

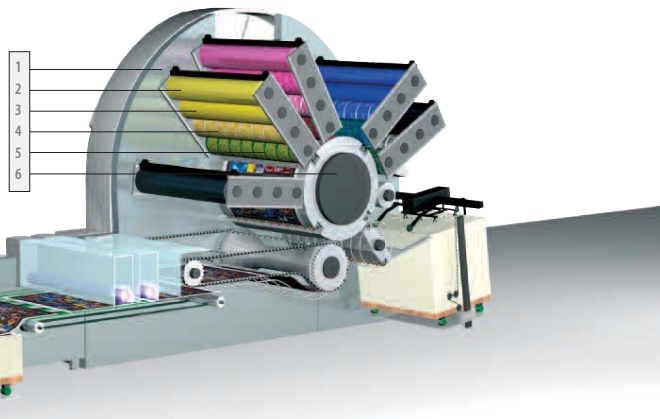


Extended delivery unit with integrated UV dryer system

Characteristics – The compact V-shaped arrangement of the printing units:

- 1 collecting blade
- 2 anilox roller
- 3 plate inker
- 4 plate cylinder
- 5 blanket cylinder
- 6 central impression cylinder

Four printing units are standard; a fifth printing unit for special colors or for inline varnishing is possible



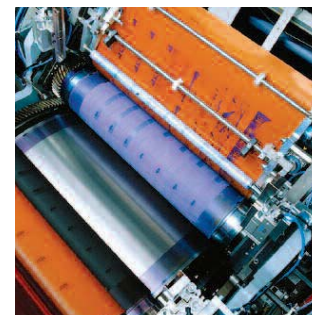
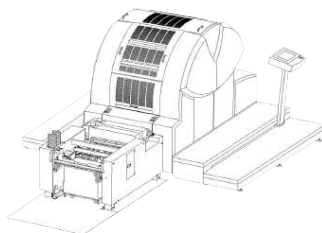


Futuristic design for the most modern sheet fed offset technology

Simply ingenious: compact construction and easy one-man operation

Another feature that contributes to the easy handling of the Genius 52UV is the semi-automatic plate changing function which can be triggered by button on the adjustable display: To ensure an exact register the plates are punched and bent off externally in a die-cutting device. All the operator then has to do is insert the plates for the new job into the corresponding shaft with the guards closed. The register-true fixing

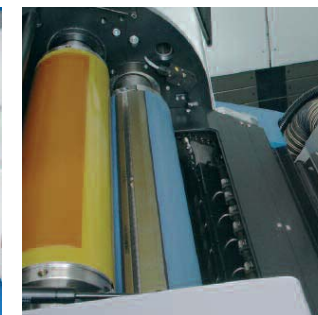
of the printing plates on the plate cylinder takes place automatically (previously used plates from repeat jobs can also be used). When the print run is finished it only takes one press of a button for the used plates to be deposited automatically in the corresponding shaft, from where they can be removed by hand. And all this takes no more than five minutes. You can use both analog and digital plates as well as waterless plates.



Fully automatic plate insertion at the press of a button enables the fast and register-true changeover from one job to the next within only five minutes



Varnishing unit: Expand your printing services by differentiation!



Detail view of the varnishing unit

Technical data of the Genius 52UV

Printing system:	waterless offset printing	
Printing units:	5	
Inks:	UV-curing inks	
Print substrates:	from 0.1 to 0.8 mm (0.004 to 0.03") (depending on substrate), PVC, ABS, PS, PE, PET, PC, carton and paper	
Performance:	max. 8,000 sheets/hour; dep. on substrate	
Stack height:	Sheet feeding	600 mm (23.62") max.
	Sheet delivery	400 mm (15.75") max.
Formats:		
Max. sheet format:	360 x 520 mm (14.2 x 20.47")	
Min. sheet format:	210 x 297 mm (8.27 x 11.69")	
Max. printing format:	350 x 500 mm (13.78 x 19.69")	
Gripper edge:	10 mm (0.39")	
Printing plates:	waterless, analog or digital	
Format / thickness:	404 x 540 x 0.3 mm / 15.91 x 21.26 x 0.0118"	
Plate change:	semi-automatic, register-true, complete plate change in less than 5 minutes	

Dimensions in all versions (Length x Width):

Basic machine:	12 m ² /135.0 sq.ft	(Height: 1906 mm / 75.0")	3825 x 3278 mm / 150.6 x 129.1 in
Machine + VU:	18 m ² /193.5 sq.ft		5484 x 3278 mm / 215.9 x 129.1 in
Machine + VU + DE1:	29 m ² /310.6 sq.ft		8802 x 3278 mm / 346.5 x 129.1 in
Machine + VU + DE1 + DE2:	36 m ² /385 sq.ft		10908 x 3278 mm / 429.4 x 129.1 in
Total weight (basic machine):	6.0 tons (approx. 13,200 lbs)		
Air consumption:	900 l/min (7 bar / 101.5 psi)		

Power connection:

Connected load:	3 x 400 V / 230 V (± 10 %), TN-S-net, 50 Hz
Electric power:	58 kVA
Amperage:	84 A
Backup fuse:	100 A

Increasing the height of the machine:

Optionally, the height of the basic machine, the varnishing unit (VU) and the delivery extensions (DE) can be increased by 245 mm / 9.6 in. This allows the stacking of higher quantities of substrate at the sheet feeder and sheet delivery.

Technical alterations reserved.

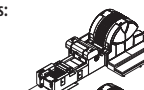
Regardless of the fact that you can also process UV varnish in the 5th printing unit of the Genius 52UV, you can add an optional varnishing unit. This way the colored prints receive a finish that will result in a real added value. Even spot varnishes are possible. Miscellaneous gloss effects can be realized by using delivery extensions. Print substrates such as plastic film or metallized substrates are transformed into a noble, haptic experience.

Features:

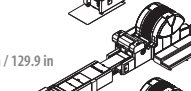
- Squeeze varnishing unit (VU) for surfaces and spot varnishing (upstream UV dryer for paint finishing)
- Dosing of varnish via gap adjustment from metering roller to pan roller
- Plate cylinder (stainless steel) with plate tensioning rail for photopolymer plates
- Gummed pan roller seated in half-shells for easy replacement
- Delivery drum twice as big with blowing air for non-contact sheet delivery

Configuration examples:

• without delivery extension



• Belt length 3,30 m / 129.9 in



• Belt length 5,30 m / 208.7 in

