

**The CD-Print
by KBA-Metronic AG**

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Our representative:



CD-PRINT

**CD and DVD printing in photorealistic quality
using waterless offset printing and UV technology.
Also suitable for small print runs.**



Up to six colors using waterless offset printing and UV technology – you get brilliant photorealistic results on media such as audio CD, CD-ROM, video CD and DVD.



Offset printing produces higher quality images on DVDs compared to screen printing, and as a result offset printing continues to gain in importance. The quality of what is on the disc should be reflected in the external appearance. Printing systems must be designed to meet the additional challenges posed by decreasing lot sizes, and setup times are becoming more and more important.

CD-Print from KBA-Metronic AG gives manufacturers and service providers in the CD and DVD sector the efficiency, flexibility and quality differentiation that they need to deliver what customers are looking for. CD-Print is ideal for small to medium print runs. It offers professionals a very efficient professional solution, which novices also find easy to use.

6,000 photorealistic prints per hours, minimal startup waste and fast change-over make CD-Print the superior choice. The system features relatively low operating costs, which are made possible by waterless offset printing using short inking technology, one-man operation and reproducible print runs. Because CD-Print uses UV technology combined with a high-performance drying system, the discs can flow into downstream operations right after printing to avoid unwanted idle time.

CD-Print features a practical compact, modular design. It is designed for tomorrow's applications. Two additional print stations for decorative colors can be added to CMYK printing. In addition to the white basic unit which comes as standard equipment, a varnish unit can be supplied as optional equipment which gives the disc an appealing finish. Depending on requirements, the

Blockbuster:

The fast and economical way
to get perfect, brilliant
printing results on
your CDs & DVDs

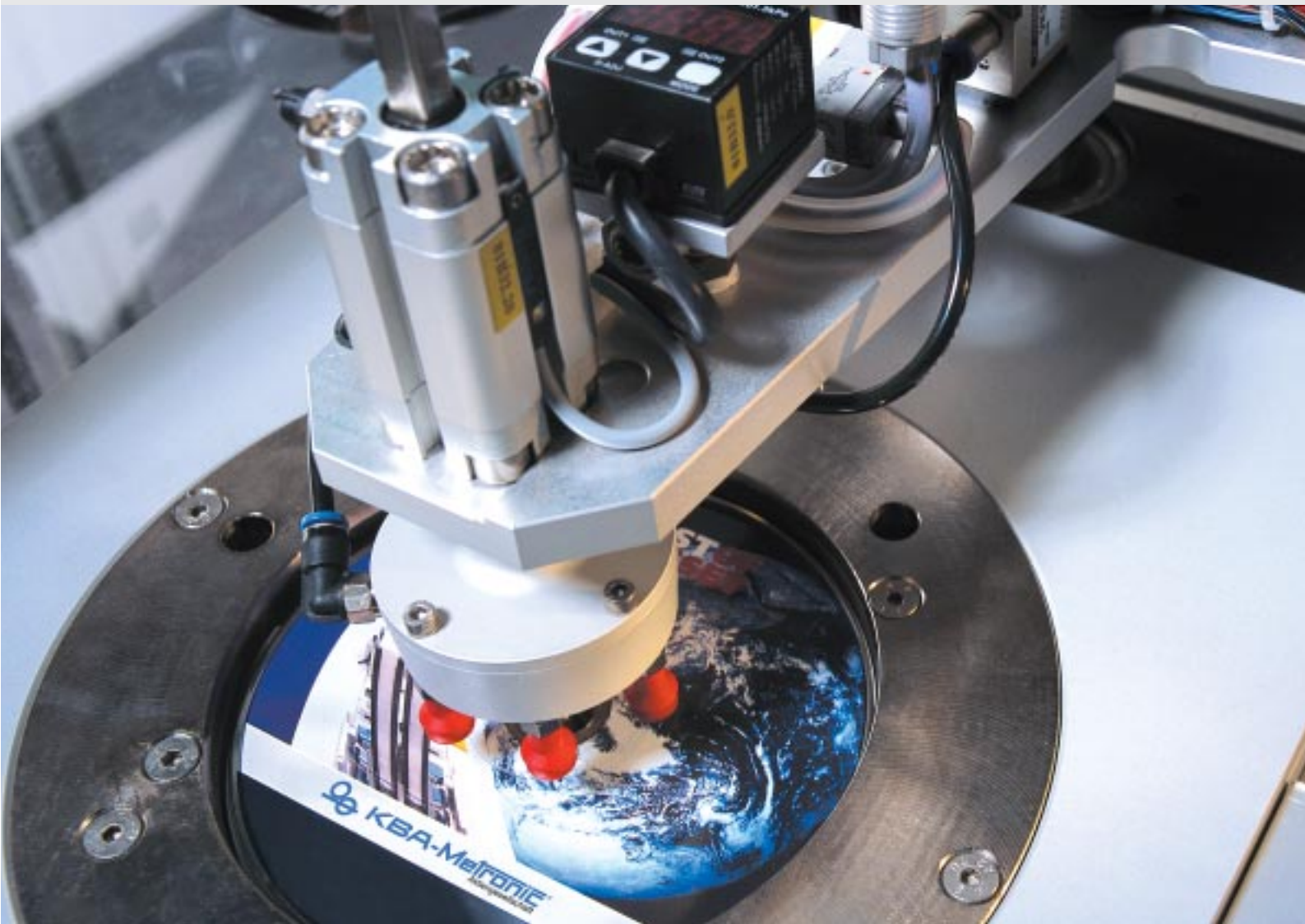
user can choose screen printing (high quality) or flexo printing (low cost). CD-Print is the ideal partner wherever space, cost and time are crucial production parameters.



The printing plates are easy to access during changeover. Simply pull out the individual print stations and you can start your new order in no time.

Users of CD-Print systems around the world are already taking advantage of the following benefits:

- Short setup times: printing plates are easy to change / changeover on all stations takes no more than 10 minutes
- Low waste (only a few discs).
- CD-Print with KBA-Metronic short inking technology is easy to operate
- 6,000 CDs/DVDs printed per hour.
- The only machine on the market that offers 6 offset colors. White primer and varnish also available.
- White basic unit gives you flexibility: Flexo or screen printing for optimal print results and maximum price/performance ratio.
- Consistent top quality print results from the first to the last disc using the anilox short inking unit without the need for ink keys
- Brilliant results with FM screening or resolutions up to 120 dots/cm (300 lines/inch) for photorealistic images.
- A drying system has been integrated to allow immediate release of discs to downstream processes.
- Minimal maintenance combined with maximum production reliability
- Simple reproducibility means that you can react quickly
- Very efficient, even for small print runs.



Precision right down to the details: delivery handling

Waterless offset printing with short inking technology uses only four cylinders per print station (anilox roller, ink transfer roller, plate cylinder and impression cylinder). This unit is compact, very easy to use and long wearing. CD-Print has been designed for one-man operation to get maximum benefit from these advantages.

ably to save space and to guarantee precision feed of the CDs/DVDs through the printing process. The discs enter the next print station before they leave the previous station. This ensures reliable, high precision transport and exact printing. Reducing the amount of mass in motion minimizes wear.



Input handling and code reader with spindle, buffer and feed handling.

The optical media are transported from the feed spindles to a cleaning station to remove any production residue or dust. On request, the CD-Print can be supplied with a check code unit to ensure that only products which have a particular code are routed to the process.

Elimination of ink keys ensures that the short inking units in the CD-Print produce uniform, high-precision color reproduction. The anilox roller and the impression cylinder have temperature regulation, and they control the color transfer. This technology guarantees stable quality throughout the entire print run, and you get the same quality of reproduction even after months of operation. Print parameters can be stored, which reduces setup time when you restart a product, and it reduces waste, which is just what you need when you have repeat orders.

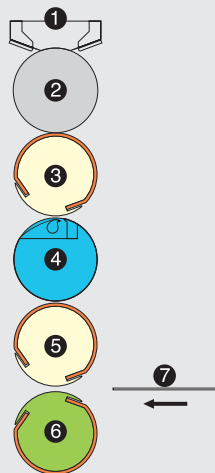
The white basic unit is used to apply a white coating to the media which is often needed. Right after the UV-hardened primer has dried, the items are immediately fed to the print stations. The short inking units are stacked verti-

Ready for the future:

Modular design

for demanding print jobs – now and in the future

The UV-hardening ink is dried after the discs leave the print stations. The discs are ready for (optional) varnishing after a fraction of a second, or they are stacked on the delivery spindle for further processing. A camera can be provided on request for print image control. Rejects are segregated automatically. CD-Print offers you excellent quality, efficiency and safety.



Schematic representation
of a four-cylinder print station:

- 1 collecting blade
- 2 anilox roller (temperature controlled)
- 3 plate inker
- 4 plate cylinder (temperature controlled)
- 5 blanket cylinder
- 6 counter pressure cylinder
- 7 CD/DVD



A multi-function white basic unit with UV dryer for applying white primer coating to the discs is placed between the feed unit and the print stations (can be configured for rotary screen printing or flexo print).



Complete CD-Print system with four print stations, feed and delivery compacts on a very small footprint.

Short inking on the CD-Print deliver photorealistic offset quality results, and it makes the system easy to use. Complete novices without special skills are able to effectively use the CD-Print after only a few hours of operator training.

Operators use a well-designed, multi-language touchscreen to adjust the lateral and circumferential register, change the temperature of the cylinders or recall stored reproduction parameters from the controller. The time consuming adjustments of ink zones and distributing rollers, which can only be performed by skilled offset printers, have been eliminated without any negative impact on quality. This saves you time, money and material.

The print stations are stacked vertically and can be pulled out for convenient access, making it easy to clean the cylinders and replace the printing plates. This reduces reaction and changeover time. Quick-action clamps make it possible to mount the printing cylinders in a single revolution of the cylinder. KBA-Metronic AG offers digital and analogue makeready equipment for producing the plates which can be reused.

The delivery spindle conveyor reduces the distance that the operators need to move. This allows them to concentrate fully on the printing process and gives them the benefit of fully automatic operation. For ease of maintenance, Internet-based remote maintenance capability is supplied as standard, providing a way of linking the CD-Print directly with the KBA-Metronic AG Service Center.



Easy access to the cylinders: only a few steps are needed to mount the printing plates.

Clear instructions from the director: user-friendly handling



CD-Print technical data

Print process

| | |
|------------------|--|
| Printing system: | waterless offset printing |
| Printing units: | 4 offset printing units (standard equipment) (5th or 6th printing unit optional) 1 white basic printing unit, 1 varnishing unit (standard: screen or flexo printing) |

| | |
|-----------|--------------------------------------|
| Ink: | UV -hardening ink |
| Capacity: | 100 pieces/minutes (6,000 pieces/hr) |

Printing materials / formats

| | |
|--------------------|--------------------------|
| Printing material: | conventional CDs or DVDs |
| Material thickness | max. 1.2 mm (0.047") |

| | |
|------------------------|--|
| Printing plates | (waterless, analogue or digital) |
| Format / thickness: | 253.5 x 150 x 0.15 mm (9.98 x 5.9 x 0.006") |

Dimensions and weight

| | |
|--|---|
| (4 printing units plus white basic unit and varnishing unit) | |
| Length x width x height: | 6,486 x 2,920 x 1,820 mm (255.4 x 115.0 x 71.7") |
| Total weight: | approx. 3.8 tons (8.380 lbs) |

Electrical supply

| | |
|------------------------|-----------------|
| Supply voltage: | 400 / 230 V |
| Network structure: | TN-S, 3L, N, PE |
| Frequency: | 50 / 60 Hz |
| Current strength: | 60 A/Phase |
| Connected performance: | 40,000 VA |
| Fusing: | 63 A |

UV drier

| | |
|--------------------|------------------------------|
| Light arc length: | 150 mm (5.9") |
| Power consumption: | max. 2.250 Watt |
| Lamp current: | approx. 16 A (100 % output) |
| Lamp voltage: | approx. 150 V (100 % output) |

Pneumatic supply

| | |
|------------------|------------------------|
| Air connection: | 6 bar (87.0 psi), 1/4" |
| Air consumption: | max. 200 l/min |

Emissions

| | |
|--------|---------------|
| Noise: | max. 76 db(A) |
|--------|---------------|

Technical alterations reserved