

The M-LINK™ Advantage

PRINT QUALITY

Print quality is the essential ingredient in every digital textile printer, and most people assume—incorrectly—that print quality begins and ends at the printhead. While high quality printheads are essential, the supporting hardware—like M-Link's industrial inkjet engine and included computer and monitor—and software—like i-Color RIP and Absolute Position® Technology (APT)—also play a key role in producing great prints. And this is where the M-Link excels.

i-COLOR RIP SOFTWARE

i-Color RIP quickly converts digital art files into printed images with maximum sharpness, superior shading & gradations, exceptional color accuracy, and minimal print time. On black garments, Black Color Mode prevents the printer from laying down white underbase and black ink on black image areas. On colored garments, Highlight Mode allows M-Links to print a highlight white, but prevents them from laying down white underbase where CMYK will be printed. This saves ink and increases print speed, but the main benefit is images far superior to other direct-to-garment methods—and printed garments that are softer, more breathable, and much closer to water-based screen-printing.

ABSOLUTE POSITION® TECHNOLOGY

M&R's exclusive servo driven Absolute Position® Technology (APT) gives M-Link a level of repeat registration not found in any other digital textile printer. While most printers rely on low-resolution encoders or low cost stepper motors, APT uses M&R's proprietary high-resolution servo encoder. APT's custom-designed firmware integrates flawlessly with M&R's i-Color RIP software. APT also includes a servo amplifier, PLC controller, and an exceptionally accurate belt drive servomotor-driven linear actuator. The power of the elements in the APT system working together enable M-Link to print multiple layers of ink on dark and colored shirts with unmatched layer-to-layer accuracy. When registration matters, M-Link's APT is the technology that professionals rely on. No other digital textile printers even come close.

HOW DO M-LINK'S PRINT MODES WORK?

Conventional Two-Pass Printing lays down a white base on the inward pass, dries the base on the outward pass and a second inward pass, and lays down CMYK on the second outward pass. OPEP™ or One-Pass Express Printing delivers maximum speed by laying down both white and CMYK on a single pass. OPEP works by positioning the two white printheads ahead of the CMYK printheads. This results in excellent images at maximum print speed (on applicable artwork).

WHAT IS WHITE-INK SETTling?

By its nature, white ink contains heavy Titanium Dioxide (TiO2) particles that tend to separate from the medium in which they're suspended. Because the particles are heavier than the other white-ink components, they tend to settle in ways that can clog printheads and even supply lines. It's a critical weak point of most DTG printers. M&R solved the issue of white-ink separation and settling by periodically circulating white ink through the ink delivery system when the printer is idle.

INCLUDED COMPUTER & MONITOR

Although most direct-to-garment printers are sold without a computer, that's not the case with M-Link. Since trouble-free computer operation is essential to successful direct-to-garment printing, M&R integrates a computer and monitor into every M-Link package. Since each computer comes with all the software necessary to operate the M-Link, users don't have to load or configure system software, much less resolve hardware or software conflicts. The inclusion of a PC also enables M&R to extensively test each M-Link system prior to shipment. There's no question that a complete preconfigured system is the surest way to seamless printer operation.

M&R'S LINK MOBILE PALLET SYSTEM

M&R's Link Pallet mobile pallet system makes it easy to move substrates between screen printing presses and direct-to-garment digital printers without loss of registration. It features a pallet base with built-in micro-registration and spring-loaded pallet locators and an aluminum mobile pallet that locks into position on the pallet base. The mobile pallet and the adhered substrate can be moved from machine to machine at will without affecting substrate registration. The Link Pallet system makes it easy to achieve phenomenal results on garments that require additional colors or types of garment decoration that may not be achievable on a single machine.

WHY GO DIGITAL?

Direct-to-garment printing may not be for everyone—but it's close. When it comes to long print runs, digital garment printing can't rival the speed and cost of screen printing. However, nothing beats digital garment printing when it comes to short-to-medium runs and one-of-a-kind prints. Prior to the arrival of digital garment printers, short-run printing wasn't economically viable. The cost of color separation, screen coating & exposure, and setup & registration put short runs of screen-printed garments beyond the reach of most customers. With direct-to-garment printing, however, traditional preparation is a thing of the past. The only thing that's required is a digital image file. The operator simply pulls up the image, specifies the number of prints, and sends it to the printer. While the last—or only—garment using that file is being printed, the operator can pull up the file for the next garment.

The uses for digital garment printers are endless. And while some large screen-printing operations have digital divisions with numerous direct-to-garment printers, those same printers are ideal for all sizes of embroidery and screen-printing operations since they're well positioned to serve the pent-up demand for small custom orders. In addition, embroiderers who may have been interested in expanding into screen printing—but were dissuaded by start-up costs—space requirements, or an additional learning curve will find digital garment printing particularly attractive.



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