Digital Squeegee®

High-Speed Inline Digital Printhead

FEATURES

- Fully integrated with M&R automatic textile presses
- Allows printers to use conventional inks for white underbase and special effects in combination with high-speed custom digital printing
- Maximum image size of 40.6 x 50.8 cm (16" x 20")
- Full-color, full-sized prints in less than five seconds

M&R's high-speed Digital Squeegee is revolutionizing hybrid screen printing. Prior to the arrival of the Digital Squeegee, garment decorators had three printing options: screen printing, direct-to-garment (DTG) digital printing, or slow-speed hybrid printing. Screen printing is fast and screen printing ink is relatively inexpensive, but complex multi-color jobs can require time-consuming setup, making it a poor choice for multi-color short runs or one-off prints. Standalone DTG printing requires virtually no setup beyond file ripping, and it's ideal for one-off prints. However, speed is glacial compared to screen printing, dark shirts require pretreatment, and ink is tremendously expensive in comparison.

Hybrid printing (screen printing combined with a digital printhead) seemed to be the solution: screen printing some or most images and devoting a print station to a digital printhead for printing complex or one-off images from computer files. However, competing digital printheads remain notoriously slow, so manufacturers' prints-per-hour claims are normally for small digital images that can be printed quickly. Unfortunately, when the digital image is large, those print-per-hour claims take a nose dive as the screen printing press has to slow dramatically in order to match the digital printer's pace.

But speed is where M&R's Digital Squeegee shines. Digital Squeegee powers 21,248 nozzles in eight industrial-strength printheads capable of firing up to 30,000 times per second. In less than five seconds, a Digital Squeegee can print a full-size 40.6 x 50.8 cm (16" x 20") digital image in one out-and-back pass, making Digital Squeegee the industry's fastest digital printhead—by far.

Digital Squeegee, in concert with one of M&R's i-Image CTS (computer-to-screen) imaging or imaging/exposure systems, nearly eliminates the digital portion of pre-press setup. When Digital Squeegee rips a digital art file, it sends a white underbase separation file to the i-Image where the operator can generate a screen pre-registered for Tri-Loc's Tri-Sync Registration Pallet. At the same time, Digital Squeegee generates a CMYK file for the digital print to be stored in a folder until it's time to run the job. Together, Digital Squeegee and an i-Image can reduce the time from digital artwork to imaged screens and print-ready digital files from days to minutes.

In many cases, the overall cost for a job can be comparable to screen printing because of the time saved in setup. With the hybrid process, inexpensive white underbase ink—rather than costly digital ink—can be screen printed. Not only is digital white ink more expensive even than digital color inks, it must be laid down in large quantities. And though digital printer ink can be up to ten times more expensive than screen printing ink, ink price is less of a concern when small image areas are involved. In fact, for relatively short runs, it can be far more cost effective to digitally print some small areas of the artwork on the Digital Squeegee than to go to the time and expense of making and registering additional screens. M&R's Digital Squeegee excels in short runs with many colors and demanding requirements.

Digital Squeegee can print on a wide array of fabrics, including synthetic and performance, and it's compatible with environmentally friendly screen inks like HSA or Urethane inks and water-based digital inks. That means Digital Squeegee can be used with specialty printing effects to expand creative possibilities and increase potential sales. If you need to match a Pantone color in a corporate piece, just separate that color onto another screen and print it with the appropriate ink.

Digital Squeegee inks can be cured in conventional gas convection dryers, and it works with most newer M&R automatic screen printing presses. With its nearly instantaneous setup process, limitless versatility, and phenomenal print speed, Digital Squeegee isn't just the best digital printhead in its class. It's in a class by itself.

SPECIFICATIONS	Digital Squeegee
Electrical Requirements[1]	220 V, 1 ph, 20 A, 50/60 Hz, 4.4 kW
Maximum Image Area	40.6 x 50.8 cm (16" x 20")
Overall Size (W x D x H)	89 x 230.5 x 182 cm (35" x 91" x 72")
Shipping Weight	1258 kg (2774 lb)

[1] If incoming voltage differs from the voltage(s) listed in this brochure, calculate amperage accordingly. Other electrical configurations are available: Contact The M&R Companies for details.

Hybrid Workflow for M&R Digital Squeegee®

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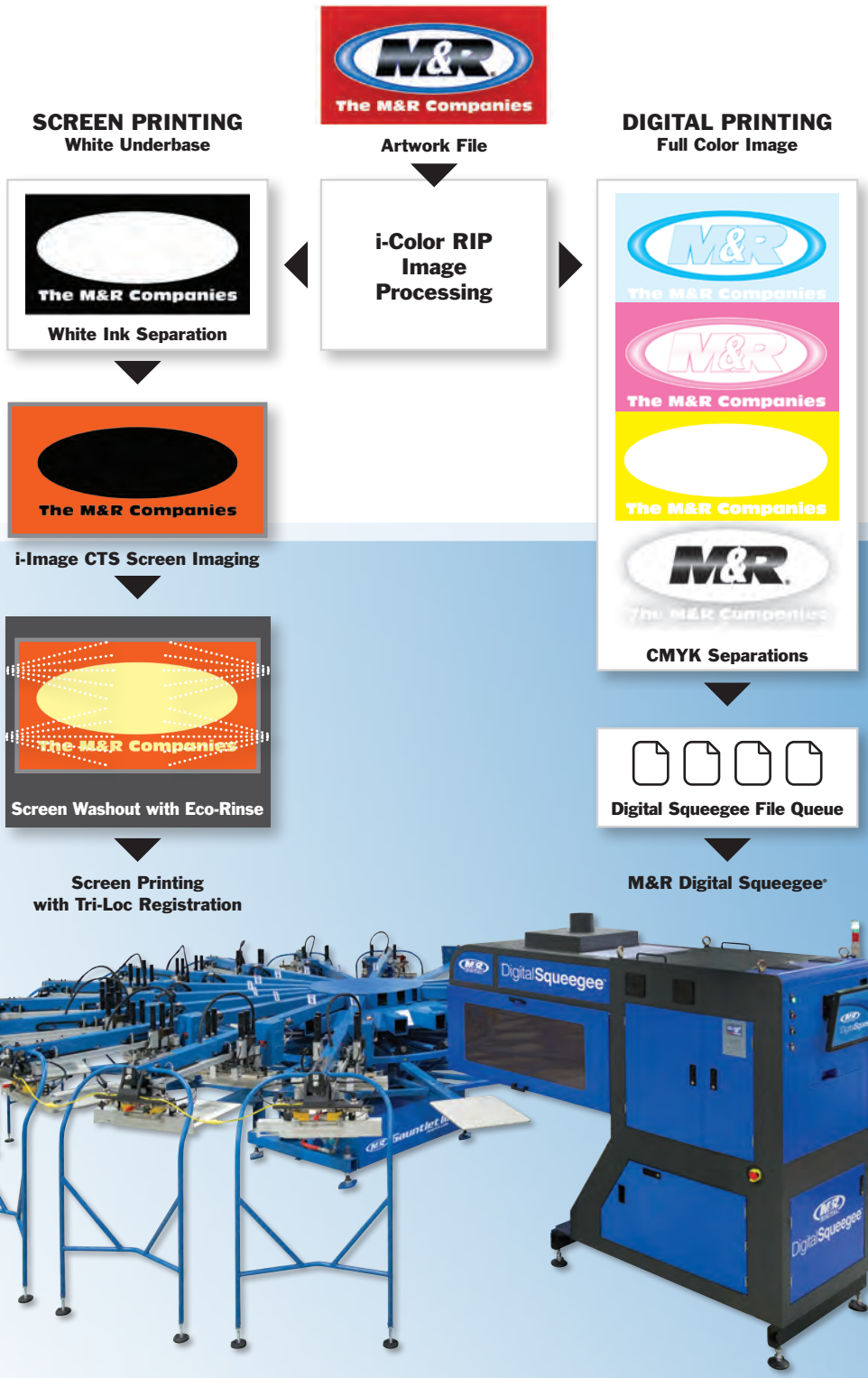

M&R DIGITAL

Get more information on M&R's DTG printing systems at **WWW.MRPRINT.COM**

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