i·Image™ Series

CTS Imaging and CTS Imaging/Exposure Systems

FEATURES

- **M&R's three-printhead i-Image STE I can generate and expose full-size images in less than a minute**
- **i-Image STE I exposes emulsion with a full-size flatbed UV LED light source**
- **i-Image XE exposes emulsion with a scanning UV LED light source**
- **i-Image S, i-Image ST & i-Image X generate computer-to-screen images for subsequent exposure on LED and traditional CTS exposure units**

Patents Pending

M&R's i-Image Series is the most popular and versatile line of computer-to-screen (CTS) imaging and imaging/exposure systems in the industry. The i-Image Series includes the flagship i-Image STE I CTS imaging/exposure system, the i-Image S and i-Image ST imaging-only systems, the oversize i-Image X imaging-only system, and the i-Image XE CTS imaging/exposure system. In short, there's an i-Image system to suit virtually every requirement.

i-Image S, i-Image ST, and i-Image X remain popular choices among some screen printers who wish to continue to use their standalone exposure systems. However, the vast majority choose the convenience of having CTS imaging and UV LED screen exposure in one machine since the imaging/exposure combination takes up less space, requires no standalone exposure unit, and dramatically reduces the time and effort required to prepare images for screen printing. In order to ensure proper screen placement, M&R designed the Tri-Sync™ System. The system's PRINT button illuminates when the contact indicators determine that the screen has been locked in place. That helps ensure that every CTS-generated screen is correctly pre-registered for M&R's Tri-Loc registration system. In fact, the Tri-Sync System prevents images from being printed if the screen frame has not been properly loaded (this feature can be turned off). And every i-Image model also includes a Tri-Sync pallet. The pallet's contact indicator lights up when the screen is properly positioned on the press, giving users the same confidence when registering screens on the press that they have when loading screens onto an i-Image unit. M&R's Tri-Sync System virtually eliminates operator screen-loading errors on the i-Image or registration errors on the press.

All i-Image Series systems use specially-formulated water-based UV-blocking ink and advanced high-resolution computer-to-screen inkjet printer technology to quickly generate opaque images on emulsion-coated screens. CTS images are superior to traditional film positives, delivering greater detail and smoother halftone transitions. i-Image Series systems eliminate the need for costly film positives, as well as the space and labor required to store and retrieve them. Because the image information is digital, it's easy to store and quick to retrieve.

i-Image ST and STE I are available in two sizes and three printhead configurations. i-Image 36 models process image areas up to 51 x 66 cm (20" x 26") and accept most screen frames up to 66 x 91 cm (26" x 36"). i-Image 43 models process image areas up to 51 x 86 cm (20" x 34") and accept most screen frames in sizes up to 66 x 109 cm (26" x 43"). i-Image ST and STE I models are available with one, two, or three industrial printheads. i-Image S processes image areas up to 51 x 66 cm (20" x 26") and accepts most screen frames up to 66 x 91 cm (26" x 36"). It's only available in a single-printhead configuration. Because of their large size and capacity—maximum screen size is 152 x 152 cm (60" x 60") and maximum image area is 132 x 132 cm (52" x 52")—i-Image X and i-Image XE come standard with three industrial printheads.

The onboard UV LED exposure systems found on M&R's imaging/exposure models streamline workflow and increase productivity, delivering fast, superior exposures with exponentially lower energy costs. Not only do UV LEDs use far less energy, they're only on during the exposure process. M&R's UV LEDs run cooler, save energy costs, reduce screen exposure time, and speed up production. And, unlike expensive metal-halide bulbs that require replacement every year or two, i-Image UV LEDs can last for decades. In fact, M&R is so confident in the longevity of i-Image's screen-exposure LEDs that it backs them with a limited lifetime warranty against failure in normal use.

Imaging and exposure is amazingly fast: one-printhead i-Image STE I systems can image and expose up to 150 screens per 8-hour shift; two-printhead models can image and expose up to 300 screens per shift; and three-printhead models can image and expose up to 400 screens per shift. In fact, three-printhead models can generate and expose full-size images in less than a minute (Note: some dual-cure and other slower-exposing emulsions may extend exposure time). And when combining an i-Image STE I with M&R's Uni-Kote screen coating system and Eco-Rinse screen rinsing system, a single operator can coat, image, expose, and rinse up to 400 screens preregistered for Tri-Loc in one eight-hour shift. M&R's Digital Screen Room can deliver phenomenal levels of productivity to your operation. And you can see it happen at **www.mrprint.com/dsr5**.

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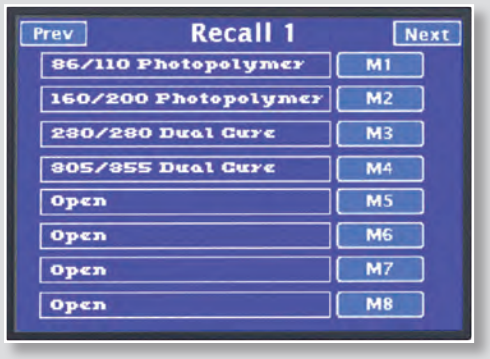
i·Image™ Series



The touchscreen control panel includes Job Recall,™ which enables users to store exposure settings for specific emulsions and quickly recall them later

i-Image S, i-Image ST, and i-Image STE I models are designed to fit through an 81 cm (32") doorway, and the i-Image X and XE are designed to fit through a 154 cm (60") doorway. All models include computer, monitor, and proprietary software that give operators complete control of print parameters, producing high-quality screen images at production-level speed. The software provides full image scaling and positioning, has 16-exposure presets for common applications, and can be user-customized for specific art types, various mesh counts, and types of emulsion. The software also gives imaging/exposure models complete control of exposure parameters. And the high density of M&R's UV LEDs—nearly 20,000 on i-Image XE—ensures the quickest exposures and the most uniform coverage available.

M&R's i-Image Series imaging systems and all-in-one computer-to-screen (CTS) imaging and UV LED exposure systems will revolutionize your screen room. Once you've experienced M&R's i-Image Series, you won't be satisfied with anything less.

i-Image STE I Computer-to-Screen Imaging-Exposure System

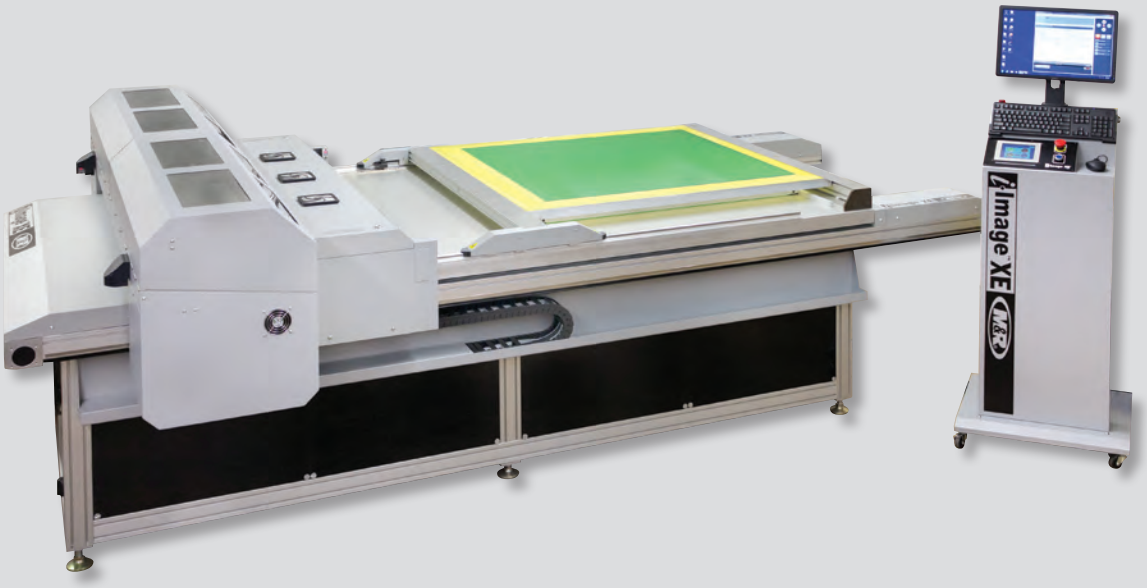
i-Image STE I is M&R's high-speed imaging/exposure system. It's available in two sizes and three printhead configurations. Maximum image areas on i-Image STE I is 51 x 66 cm (20" x 26") or 51 x 86 cm (20" x 34"). Three-printhead i-Image STE I units can generate and expose full-size images in less than a minute.

i-Image S, i-Image ST, and i-Image X Computer-to-Screen Imaging Systems

i-Image ST, i-Image S, and i-Image X have all the imaging features and capabilities of i-Image STE I and i-Image XE, but without exposure capability. Maximum image areas on i-Image ST is 51 x 66 cm (20" x 26") or 51 x 86 cm (20" x 34"). Maximum image area on i-Image X is 132 x 132 cm (52" x 52").

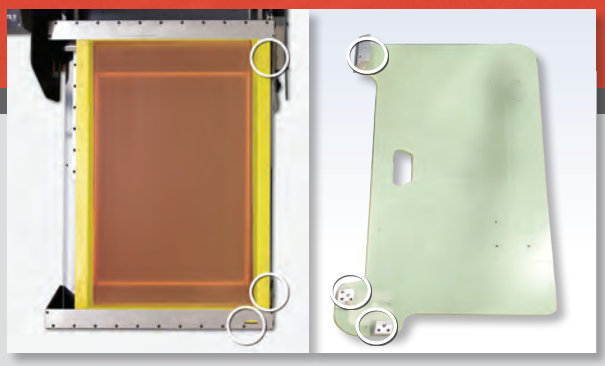
i-Image XE Computer-to-Screen Imaging-Exposure System

i-Image XE (US Patent Pending. European Patent Application No. 14721111.4) is M&R's oversize CTS system. It's ideal for imaging and exposing oversize screens for textile screen printing as well as for exposing and imaging multiple textile screens simultaneously. It's also suitable for some graphics applications. Maximum screen size is 152 x 152 cm (60" x 60") and maximum image area is 132 x 132 cm (52" x 52").

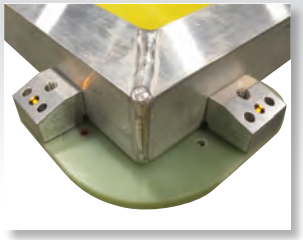


i-Image S

The single-printhead i-Image S is ideal for screen printers who need a maximum image area of 51 x 66 cm (20" x 26") or less and process fewer than 100 screens per 8-hour shift.



Registration points on all i-Image Series models precisely match the stop points on original Tri-Loc and new Tri-Sync pallets for blazingly fast registration



Pallet indicator lights show proper positioning of screen on Tri-Sync pallet

Tri-Loc for CTS Imaging Systems

M&R's Tri-Sync System ensures that every CTS-generated screen is automatically pre-registered for M&R's Tri-Loc registration system. And the Tri-Sync pallet makes on-press registration blazingly fast. In fact, owners report imaging and exposing screens in as little as 40 seconds—and having them washed out and registered on the press in less than 8 minutes! Users simply mount the Tri-Sync pallet to the press and move it to each printhead, pulling the screen frames into contact with the three registration points. The pallet's contact indicator lights up when the screen is properly positioned on the press. It's amazingly fast, easy, and accurate.

STANDARD FEATURES

CERTIFICATION

- CE Certified: Built to specifications established by the European Committee for Standardization® (CE)
- UL Listed: Built to specifications established by Underwriters Laboratories® (UL)

COMPUTER-TO-SCREEN IMAGING

- Can be user-customized for specific art types, various mesh counts, and types of emulsion
- Digital workflow simplifies the imaging process
- Eliminates the need for costly film
- Improves image quality
- Produces exceptional screen-to-screen registration
- Promotes faster on-press setup and registration
- Provides complete control of print parameters
- Provides full image scaling and positioning
- Reduces processing steps
- Virtually eliminates pinhole touchup
- Workflow can be customized for specific customer needs

DESIGN & CONSTRUCTION

- Designed to fit through an 81 cm (32") doorway (i-Image S, i-Image ST & i-Image STE I) or a 154 cm (60") doorway (i-Image X & i-Image XE)
- Includes computer, monitor, and M&R's proprietary software
- Self-contained design speeds production by allowing placement in light-safe screen-coating rooms
- Touchscreen panel with alphanumeric display

LIGHT SOURCE FOR SCREEN EXPOSURES (i-Image STE I & i-Image XE)

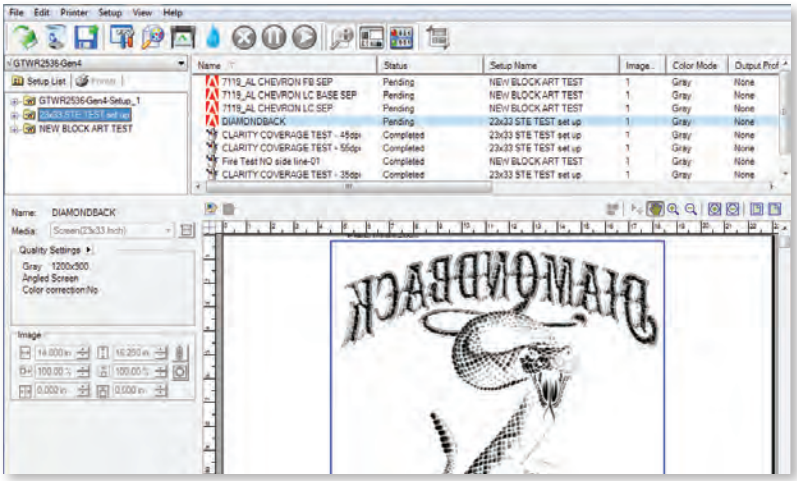
- Combines CTS imaging and UV LED screen exposure in one machine
- Dramatically reduces exposure time
- Eliminates the need for a separate screen exposure unit
- i-Image STE I exposes emulsion with a full-size flatbed light source
- i-Image XE exposes emulsion with a scanning UV LED light source (US Patent Pending. European Patent Application No. 14721111.4)
- Job Recall™ allows storage and recall of numerous screen exposure values
- The high density of M&R's UV LEDs ensures the quickest exposures and the most uniform coverage available
- UV LEDs use far less energy than metal halide lamps and are only on during the screen exposure process

TRI-SYNC™ SYSTEM

- Contact indicator ensures proper screen placement prior to imaging (the PRINT button lights up when the screen is locked in place)
- Helps ensure that every CTS-generated screen is accurately pre-registered for M&R's Tri-Loc system
- Prevents images from being printed if the screen frame has not been properly loaded (this feature can be turned off)
- Tri-Sync Pallet (included) uses a similar contact indicator to ensure proper screen placement on the press

WARRANTY, SERVICE AND SUPPORT

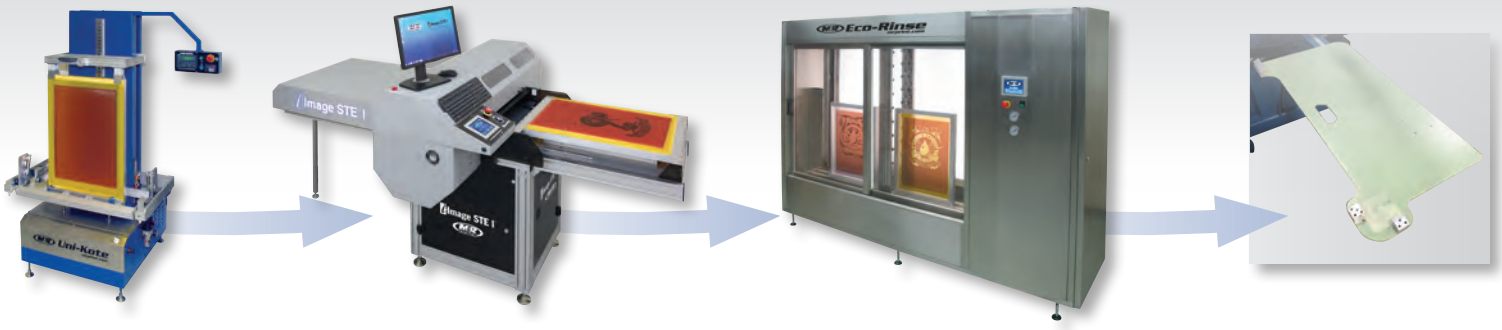
- 24-hour hotline is staffed 365 days a year
- Access to M&R's Training Center
- M&R OEM parts—including genuine M&R pallets & platens—and screen printing supplies are available online at store.mrprint.com
- One-year limited warranty
- The screen-exposure LEDs used in this equipment carry a limited lifetime warranty against failure in normal use



Powerful RIP software provides full image scaling and positioning, presets for common applications, and can be user-customized for specific art types and various mesh counts

THE DIGITAL SCREEN ROOM

Fast, high-quality screen printing starts with high-quality screens, and M&R's Digital Screen Room concept is dedicated to dramatically reducing screen-production time while making substantial improvements to image quality and consistency.



1 Coat Screens with
Uni-Kote
Automatic Screen Coating Machine

2 Image & Expose Screens with
i-Image STE I
CTS Imaging & Exposure System

3 Rinse Exposed Screens with
Eco-Rinse
Automatic Screen Rinsing System

4 Register Screens with
Tri-Loc
Rapid Screen Registration System

SPECIFICATIONS

	i-Image ST & STE I 36-1	i-Image ST & STE I 36-2	i-Image ST & STE I 36-3	i-Image ST & STE I 43-1	i-Image ST & STE I 43-2	i-Image ST & STE I 43-3
Electrical Requirements (ST) [1, 2, 3]	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.2 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.2 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.2 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.2 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.2 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.2 kW
Electrical Requirements (STE I) [1, 2, 3]	208/230 V, 1 ph, 8.5 A, 50/60 Hz, 1.9 kW	208/230 V, 1 ph, 8.5 A, 50/60 Hz, 1.9 kW	208/230 V, 1 ph, 8.5 A, 50/60 Hz, 1.9 kW	208/230 V, 1 ph, 8.5 A, 50/60 Hz, 1.9 kW	208/230 V, 1 ph, 8.5 A, 50/60 Hz, 1.9 kW	208/230 V, 1 ph, 8.5 A, 50/60 Hz, 1.9 kW
Industrial Printheads	1	2	3	1	2	3
Maximum Image Area [4]	51 x 66 cm (20" x 26")	51 x 66 cm (20" x 26")	51 x 66 cm (20" x 26")	51 x 86 cm (20" x 34")	51 x 86 cm (20" x 34")	51 x 86 cm (20" x 34")
Maximum Screen Frame Profile	4.1 cm (1.63")	4.1 cm (1.63")	4.1 cm (1.63")	4.1 cm (1.63")	4.1 cm (1.63")	4.1 cm (1.63")
Maximum Screen Frame Size	66 x 91 cm (26" x 36")	66 x 91 cm (26" x 36")	66 x 91 cm (26" x 36")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")	66 x 109 cm (26" x 43")
Overall Size (H x W x D) (ST)	125 x 142 x 213 cm (49" x 56" x 84")	125 x 142 x 213 cm (49" x 56" x 84")	125 x 142 x 213 cm (49" x 56" x 84")	125 x 142 x 254 cm (49" x 56" x 100")	125 x 142 x 254 cm (49" x 56" x 100")	125 x 142 x 254 cm (49" x 56" x 100")
Overall Size (H x W x D) (STE I)	125 x 142 x 254 cm (49" x 56" x 100")	125 x 142 x 254 cm (49" x 56" x 100")	125 x 142 x 254 cm (49" x 56" x 100")	125 x 142 x 287 cm (49" x 56" x 113")	125 x 142 x 287 cm (49" x 56" x 113")	125 x 142 x 287 cm (49" x 56" x 113")
Screens per Shift [5]	150	300	400	150	300	400
Shipping Weight (ST)	612 kg (1350 lb)	612 kg (1350 lb)	612 kg (1350 lb)	635 kg (1400 lb)	635 kg (1400 lb)	635 kg (1400 lb)
Shipping Weight (STE I)	635 kg (1400 lb)	635 kg (1400 lb)	635 kg (1400 lb)	658 kg (1450 lb)	658 kg (1450 lb)	658 kg (1450 lb)

	i-Image S
Electrical Requirements [1, 2, 3]	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW
Industrial Printheads	1
Maximum Image Area [4]	51 x 66 cm (20" x 26")
Maximum Screen Frame Profile	4.1 cm (1.63")
Maximum Screen Frame Size	66 x 91 cm (26" x 36")
Overall Size (H x W x D)	127 x 152 x 168 cm (50" x 60" x 66")
Screens per Shift [5]	100
Shipping Weight	408 kg (900 lb)

	i-Image X	i-Image XE
Electrical Requirements [1, 2]	208/230, 1 ph, 13 A, 50/60 Hz, 3 kW	208/230 V, 1 ph, 20 A, 50/60 Hz, 4.6 kW
Industrial Printheads	3	3
Maximum Image Area	132 x 132 cm (52" x 52")	132 x 132 cm (52" x 52")
Maximum Screen Frame Profile	7.5 cm (3")	7.5 cm (3")
Maximum Screen Frame Size	152 x 152 cm (60" x 60")	152 x 152 cm (60" x 60")
Overall Size	127 x 221 x 321 cm (50" x 87" x 126.5")	127 x 221 x 321 cm (50" x 87" x 126.5")
Overall Size: Control Unit (H x W x D)	132 x 62 x 62 cm (52" x 24.5" x 24.5")	132 x 62 x 62 cm (52" x 24.5" x 24.5")
Shipping Weight	1605 kg (3538 lb)	1605 kg (3538 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.
[2] An uninterruptable power supply (UPS) should be used to protect electrical components
[3] 110 V electrical configuration is optionally available
[4] When printed on a 66 x 91 cm (26" x 36") screen frame on i-Image S, i-Image ST & i-Image STE I 36 models or when printed on a 66 x 109 cm (26" x 43") screen frame on i-Image ST & STE I 43 models
[5] Approximate number of screens the model is capable of printing in an 8-hour shift. Figures do not include exposure time, which may vary according to emulsion type and thickness.

The M&R Companies

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