

CTS Imaging & Imaging/Exposure Systems



FEATURES

- *i*-Image STE 3 & ST 3 can generate full-size images in as little as 30 seconds
- *i*-Image STE uses UV LED technology to expose screens on the outward pass (patent pending)
- The screen-exposure LEDs used in the *i*-Image STE carry a limited lifetime warranty against failure in normal use

i-Image STE Computer-to-Screen (CTS) Imaging System

M&R's *i*-Image STE is the world's first all-in-one computer-to-screen (CTS) imaging and UV LED exposure system (patent pending). By combining CTS imaging and UV LED screen exposure in one machine, M&R has dramatically reduced the time and effort required to prepare images for screen printing. On the inward pass, *i*-Image STE uses specially-formulated water-based UV-blocking ink and advanced high-resolution CTS inkjet printer technology to quickly generate opaque images on emulsion-coated screens. On the outward pass, the built-in high-output UV LED exposure system exposes imaged screens, producing screens that can be taken directly to washout. CTS images are superior to traditional film positives, delivering greater detail and smoother halftone transitions. *i*-Image STE eliminates 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 STE's onboard UV LED exposure system streamlines workflow and increases productivity, delivering fast, superior curing with exponentially lower energy costs. Not only do 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 STE's UV LED light source 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. The *i*-Image STE computer-to-screen imaging & exposure system includes computer, monitor, and M&R's proprietary software. By providing complete control of print and exposure parameters, the software

ensures high-quality screen images at production-level speed. It 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.

Two *i*-Image STE models are available in three configurations: *i*-Image STE 1, with one industrial printhead capable of imaging up to 150 screens per 8-hour shift; *i*-Image STE 2, with two printheads for imaging up to 250 screens per shift; and *i*-Image STE 3, with three printheads for imaging up to 350 screens per shift. In fact, *i*-Image STE 3 can generate a full-size image in as little as 30 seconds (Note: some emulsions may extend the time required for the outward pass). *i*-Image STE 36 units process image areas up to 51 x 58 cm (20" x 23") and accept most screen frames up to 66 x 91 cm (26" x 36"). *i*-Image STE 43 units process image areas up to 51 x 76 cm (20" x 30") and accept most screen frames in sizes up to 66 x 109 cm (26" x 43"). All *i*-Image STE units are designed to fit through an 81 cm (32") doorway. M&R's *i*-Image STE all-in-one computer-to-screen (CTS) imaging and UV LED exposure system will revolutionize your screen room. Once you've experienced an *i*-Image STE, you won't be satisfied with anything less.

i-Image ST Computer-to-Screen (CTS) Imaging System

i-Image ST has all the imaging features and capabilities of *i*-Image STE but without *i*-Image STE's ability to expose screens on the outward pass. If you already have the means to expose CTS-generated screens, *i*-Image ST may be right for you.



THE DIGITAL SCREEN ROOM

i-IMAGE STE WORKFLOW



1 Coat Screens with Uni-Kote Automatic Screen Coating Machine

Uni-Kote provides a reliable, low-cost option for automating screen coating. The computerized control center, conveniently mounted at the side of the screen coating machine, makes programming simple. Uni-Kote's front and rear screen coaters can apply emulsion in tandem or independently.



2 Image and Expose Screens with *i*-Image STE Computer-to-Screen Imaging & Exposure System

M&R's *i*-Image STE is the world's first all-in-one computer-to-screen (CTS) imaging and exposure system (patent pending). By combining CTS imaging and UV LED screen exposure in one machine, M&R has dramatically reduced the time and effort required to prepare images for screen printing. On the inward pass, *i*-Image STE quickly generates opaque images on emulsion-coated screens. On the outward pass, the built-in high output UV LED exposure system exposes imaged screens, producing finished screens that can be taken directly to washout.

i-IMAGE ST WORKFLOW



1 Coat Screens with Uni-Kote Automatic Screen Coating Machine



2 Image Screens with *i*-Image ST Computer-to-Screen Imaging System

i-Image ST computer-to-screen imaging system uses computer-to-screen inkjet printer technology to generate opaque images on emulsion-coated screens. With fewer layers of glass and no vacuum required, those images can be processed in as little as half the time on screen exposure equipment like Tri-Light CTS computer-to-screen exposure system and MSP 3140 CTS computer-to-screen exposure unit.

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.



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

M&R's Eco-Rinse automates the tedious process of rinsing exposed screens while ensuring consistency and reducing the chance of unintentionally blowing out exposed images. Manually-processed screens often require follow-up rinsing because of incomplete or inadequate processing due to operator fatigue, boredom, or inadequate training. Processing can also vary from one operator to the next. Those problems are eliminated with the consistent screen rinsing available with the Eco-Rinse automatic screen rinsing system.

WORKFLOW COMPARISON *i-Image STE & i-Image ST systems*

Since *i-Image STE* quickly creates and exposes images, it eliminates the need for a separate exposure system and makes the process as simple as **Coat, Image/Expose, and Rinse**. It's ideal for shops looking to automate the screen creation process, for shops with limited screen-room space, and for shops with outdated exposure systems.

i-Image ST has all the imaging features and capabilities of *i-Image STE* but without *i-Image STE*'s ability to expose screens on the outward pass. It offers an attractive alternative for shops with sophisticated CTS exposure systems and abundant screen-room space.



Select Your Exposure System

3 Expose Screens with D-Scan or with MSP 3140 CTS or Tri-Light CTS Exposure System

D-Scan's UV LED scanning strip exposes digitally-created screens. Ultra-fast curing and minimal energy usage make it ideal for shops transitioning to digital screen creation. Tri-Light CTS and MSP 3140 CTS expose conventional screens as well as CTS-generated screens, adding flexibility for shops using both screen types.



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

FEATURES

CERTIFICATION

- CE & UL compliant: Built to specifications established by the European Committee for Standardization® (CE) and 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
- STE 3 and ST 3 models can generate a full-size image in as little as 30 seconds
- Virtually eliminates pinhole touchup
- Workflow can be customized for specific customer needs

DESIGN & CONSTRUCTION

- Designed to fit through an 81 cm (32") doorway
- Includes computer, monitor, and M&R's proprietary software
- Self-contained design speeds production by allowing placement in light-safe screen-coating rooms
- Ships fully assembled and ready to deploy
- Touchscreen panel with alphanumeric display



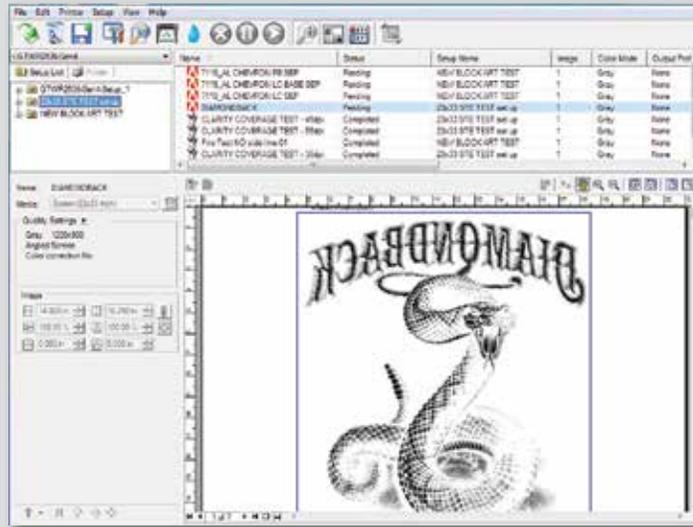
Touchscreen controls simplify programming and recall of screen exposure values

LIGHT SOURCE FOR SCREEN EXPOSURES (i-IMAGE STE)

- Dramatically reduces exposure time
- Combines CTS imaging and UV LED screen exposure in one machine
- Eliminates the need for a separate screen exposure unit
- Job Recall™ allows storage and recall of numerous screen exposure values
- UV LED light strip cures emulsion on the outward pass
- UV LEDs use far less energy than metal halide lamps and are only on during the exposure process

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 (see M&R's screen-exposure LED warranty for details and exclusions)



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



Easy adjustment of artwork layout and numerous print parameters

SPECIFICATIONS

	i-Image STE & ST 36-1	i-Image STE & ST 36-2	i-Image STE & ST 36-3	i-Image STE & ST 43-1	i-Image STE & ST 43-2	i-Image STE & ST 43-3
Electrical Requirements (ST) ^{1,2,3}	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW	208/230 V, 1 ph, 5 A, 50/60 Hz, 1.15 kW
Electrical Requirements (STE) ^{1,2,3}	208/230 V, 1 ph, 7 A, 50/60 Hz, 1.21 kW	208/230 V, 1 ph, 7 A, 50/60 Hz, 1.21 kW	208/230 V, 1 ph, 7 A, 50/60 Hz, 1.21 kW	208/230 V, 1 ph, 7 A, 50/60 Hz, 1.21 kW	208/230 V, 1 ph, 7 A, 50/60 Hz, 1.21 kW	208/230 V, 1 ph, 7 A, 50/60 Hz, 1.21 kW
Industrial Printheads	1	2	3	1	2	3
Maximum Image Area ⁴	51 x 58 cm (20" x 23")	51 x 58 cm (20" x 23")	51 x 58 cm (20" x 23")	51 x 76 cm (20" x 30")	51 x 76 cm (20" x 30")	51 x 76 cm (20" x 30")
Maximum Screen Frame Profile	4.1 x 4.1 cm (1.63" x 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")
Minimum Screen Frame Size	30 x 46 cm (12" x 18")					
Overall Size (H x W x D)	127 x 142 x 213 cm (50" x 56" x 84")	127 x 142 x 213 cm (50" x 56" x 84")	127 x 142 x 213 cm (50" x 56" x 84")	257 x 142 x 213 cm (50" x 56" x 101")	257 x 142 x 213 cm (50" x 56" x 101")	257 x 142 x 213 cm (50" x 56" x 101")
Screens per Shift ⁵	150	250	350	150	250	350
Shipping Weight (ST)	567 kg (1250 lb)	567 kg (1250 lb)	567 kg (1250 lb)	590 kg (1300 lb)	590 kg (1300 lb)	590 kg (1300 lb)
Shipping Weight (STE)	612 kg (1350 lb)	612 kg (1350 lb)	612 kg (1350 lb)	635 kg (1400 lb)	635 kg (1400 lb)	635 kg (1400 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 uninterruptible 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 STE & ST 36 models or when printed on a 66 x 109 cm (26" x 43") screen frame on i-Image STE & ST 43 models

⁵ Approximate number of screens the model is capable of printing in an 8-hour shift. Your results may vary.



The M&R Companies
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