

# STARLIGHT ASO™

## UV LED Screen Exposure System



STARLIGHT ASO with optional floor stand

### FEATURES

- **Adjustable Spectrum Output features three independently adjustable nanometer ranges to increase screen-exposure flexibility**
- **High-output UV LEDs produce fast, inexpensive screen exposures at cooler operating temperatures**
- **The high density of M&R's screen-exposure LEDs provides the finest detail, the most uniform coverage, and the quickest exposures available**
- **Maximum screen frame size 79 x 102 cm (31" x 40")**

M&R's patent-pending Starlight ASO (Adjustable Spectrum Output) uses three independently adjustable nanometer ranges to increase screen-exposure flexibility. Each range can vary light output from 0%-100%, and operators can increase or decrease gain (intensity) to best match each emulsion. Operators can also fine tune exposure intensity on sensitive emulsions or emulsion that expose very quickly.

Starlight ASO has the same features as other Starlight models, and it can also be used as a tabletop or stand-mounted exposure unit, and it's ideal for conventional exposures, and an optional CTS retrofit kit turns the Starlight ASO into a computer-to-screen (CTS) UV LED screen exposure system. Starlight ASO's UV LEDs save energy costs, reduce screen exposure time, speed up production, and operate at far lower temperatures than metal-halide lamps. And, unlike expensive metal-halide bulbs that require replacement every year or two, Starlight ASO's UV LED light source can last for decades. In fact, M&R is so confident in the longevity of Starlight ASO's screen-exposure LEDs that it backs them with a limited lifetime warranty against failure in normal use. And the high density of M&R's screen-exposure LEDs (a total of 6840) provides the finest detail, the most uniform coverage, and the quickest exposures available. M&R's Starlight ASOs have more than three times as many LEDs per square inch as some competing products.

Starlight ASO's sophisticated digital touchscreen controller automates screen exposures. All the operator needs to do is select the appropriate exposure preset and press START. The entire process, including vacuum, exposure, and shutdown, takes place without further operator

involvement. Starlight ASO allows the operator to walk away after initiating the process because Starlight ASO ensures that exposures will not begin until proper vacuum has been reached—and vacuum and exposure LEDs will shut off automatically upon completion of exposure. Vacuum and exposure times can be set between 0.1 and 999.9 seconds. And Starlight ASO's Job Recall™ speeds processing and increases productivity by enabling operators to save and recall up to 24 vacuum and exposure profiles—and identify each with a unique name or description.

Starlight ASOs quickly expose direct, capillary, and indirect emulsions. They work particularly fast on photopolymer emulsions, which can be exposed in as little as three to five seconds (results will vary based on emulsion type and thickness). Starlight ASO UV LED screen exposure units can be located in areas housing unexposed screens because the ultraviolet light source and vacuum frame are enclosed, and the screen exposure lamp can't be turned on while the blanket frame is open. Starlight ASOs also incorporate several strips of yellow, non-exposing LED inspection lights for convenient setup. The Starlight ASO is capable of exposing screen frames up to 79 x 102 cm (31" x 40"). The Starlight ASO is compatible with most sizes of M&R's Tri-Loc Registration System. If you're looking for blazingly fast quality exposures at an unbelievably affordable price, you'll find it all in the Starlight ASO.

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# STARLIGHT ASO™

## STANDARD FEATURES

### BLANKET & VACUUM

- Exceptionally flexible and resilient material ensures intimate contact
- Gas shocks simplify blanket frame opening and closing
- Oil-free pump is fast, quiet, and efficient
- Specially designed vacuum system features high-speed drawdown

### CERTIFICATION

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

### DESIGN & CONSTRUCTION

- Fully-enclosed, heavy-duty all steel cabinet
- Light-Loc™ automatically turns off the screen exposure light source if the blanket frame is opened
- Optically clear plate glass
- Self-contained design speeds production by allowing placement in light-safe screen-coating rooms
- Ships fully assembled and ready to deploy
- Starlight ASO is compatible with most sizes of M&R's Tri-Loc® Rapid Registration System

### EXPOSURE CONTROLS

- Adjustable Spectral Output allows complete adjustment of three different nanometer ranges, as well as the gain (Intensity)
- Computerized touchscreen controller allows the operator to set vacuum and exposure times
- Exposure time can be set between 0.1 and 999.9 seconds
- Job Recall™ allows operators to save and recall up to 24 vacuum & exposure profiles—and identify each with a unique name or description
- Vacuum sensor automatically initiates the exposure process as soon as the operator-defined vacuum setting is reached

### LIGHT SOURCE FOR SCREEN EXPOSURES

- Adjustable Spectrum Output (ASO) features three independently adjustable nanometer ranges to increase screen-exposure flexibility
- ASO ranges can vary light output from 0%-100% for fine tuning exposures
- Dramatically reduces exposure time
- Multiple banks of high-output UV LEDs excel on all emulsions: direct, capillary, and indirect
- The high density of M&R's screen-exposure LEDs (6,840) provides the finest detail, the most uniform coverage, and the quickest exposures available
- UV LEDs use far less energy than metal halide lamps and are only on during the exposure process
- UV LEDs run cooler, reduce screen exposure time, and speed up production

### VACUUM/EXPOSURE PROCESS

- Starlight's Controller automates the screen exposure process:
  1. The operator selects the appropriate exposure preset and presses **START**
  2. When the system reaches the preset vacuum level, the user-set vacuum countdown begins
  3. When vacuum countdown reaches zero, the LED exposure process begins
  4. When exposure countdown reaches zero, vacuum and exposure LEDs turn off automatically
  5. After the exposure is complete, the display shows **EXPOSURE COMPLETE** letting the operator know that the screen has been exposed
- Starlight's exposure process allows the operator to walk away after pushing the start button because the automated process ensures that exposures will not begin until proper vacuum has been reached—and vacuum and exposure LEDs will shut off automatically upon completion of exposure

### WARRANTY, SERVICE & 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

## OPTIONS

### CTS RETROFIT KIT

- Available at the time of purchase or as a field retrofit
- CTS Kit turns Starlight into a computer-to-screen UV LED screen exposure system
- Eliminates glass and the need for vacuum drawdown for faster exposure times
- Replaces the glass with an adjustable screen support framework, providing quick adjustment for different frame sizes

### FLOOR STAND

- Turns Starlight ASO models into freestanding UV LED screen exposure systems

## SPECIFICATIONS

	Starlight ASO
Electrical Requirements <sup>1</sup>	110V, 1ph, 12.5A, 50/60Hz, 1.4 kW
Maximum Screen Frame Size	79 x 102 cm (31" x 40")
Overall Size with Stand (H x W x D)	104 x 130 x 109 cm (41" x 51" x 43")
Overall Size (H x W x D)	23 x 130 x 109 cm (9" x 51" x 43")
Shipping Weight	193 kg (425 lb)

<sup>1</sup> 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.



The M&R Companies

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